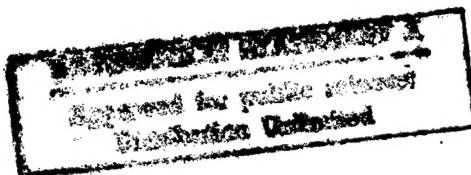


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# China Report

AGRICULTURE

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21 May 1985

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NATIONAL

TWO GUIDING IDEOLOGIES FOR COORDINATING, DEVELOPING AGRICULTURE

Beijing GUANGMING RIBAO in Chinese 28 Jan 85 p1

[Article: "Agriculture Should Coordinate Development and Readjust Its Structure: He Kang States the Need to Carry Out the Two Important Points of the National Rural Work Conference"]

[Text] "To study and carry out the spirit of the CPC Central Committee's National Rural Work Conference, one must have a thorough grasp of the two guiding ideologies advanced by the leading comrades of the Central Committee concerning rural reform. The first is that agriculture should have coordinated development; the second is that the agriculture structure should be readjusted." This is what He Kang, Minister of Agriculture, Animal Husbandry, and Fishery proposed at the recent National Aquatic Processing Work Conference.

He quoted these words of a leading comrade of the Central Committee: There should be large-scale development of animal husbandry and aquatic products, and with this, a change in the structure of agriculture products and foodstuffs, and an increase in animal protein, thereby improving the health of the Chinese people. Because of this, we should elevate the status of animal husbandry, aquatic products, and processing of aquatic products to the same level as crops.

He pointed out: the emergence of difficulties in selling grain, cotton, and other commodities is an important indicator that agriculture is entering a new stage of commodity production. Now that commodity production is geared to market demand, the rapid reform of the agriculture structure will facilitate coordinated development. In the past, crops constituted 60 to 70 percent of agriculture, with grain accounting for 80 percent of all crops. Animal husbandry only accounted for 12 to 15 percent of agriculture, with hogs composing 90 percent of animal husbandry. Because of this traditional grain and hog structure, other aspects of agriculture, industry, commerce, construction, transportation, and services did not have coordinated development. The present situation of excess grain is a golden opportunity for the readjustment of the agriculture structure and creates very favorable conditions for developing the breeding of aquatic products and the aquatic products industry.

How do we make the agricultural structure adapt to the needs of the specialized, commercialized, and modernized new era? He Kang says that readjustment should be promoted through price reform, and the relaxation of price controls will invigorate it.

NATIONAL

## HU YAOBANG STRESSES DEVELOPMENT OF ANIMAL HUSBANDRY ENTERPRISES

Beijing NONGCUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 1, 5 Jan 85 pp 4-6

[Summary of speech by Hu Yaobang: "Comrade Hu Yaobang 's Speech on the Question of Developing Animal Husbandry Enterprises"]

[Text] Editor's Note: On 17 November 1984, Comrade Hu Yaobang talked with Xiao Peng, vice minister of the Ministry of Agriculture, Animal Husbandry and Fishery, and other comrades at Zhongnanhai on the question of developing our animal husbandry enterprises. This talk was of instructive significance not only to animal husbandry enterprises but also to the entirety of our rural work. Published below are the major points.

During the past few years, our animal husbandry enterprises have been developing very rapidly, and our work has been fruitful. Now let me discuss some of my views concerning our future work.

1. During the next 30 years, that is, beginning today and up to 20 years into the 21st century, our animal husbandry enterprises should carry out a policy of large-scale development. Only large-scale development of our animal husbandry enterprises and water resource enterprises can fundamentally change the food structure of the Chinese people by gradually converting a diet of mainly foodgrains into one of mainly meats and milk. We shall strive to realize this goal within one generation's time. It is central to the cause of initiating a turn for the better in the physical constitution of our whole nation. Cao Gui of the Spring and Autumn period uttered some well-known words: "Meat eaters are vulgar." This was a criticism of those dignitaries and nobles who fattened themselves all the time without doing anything useful. Today we can no longer say such things; we must, through a large-scale development of our animal husbandry enterprises, fundamentally change the food structure of our nation, increase the meat and milk products in our diet by a large margin, and effect a fundamental turn for the better in the physical constitution of the Chinese, so as to put them on the superior level of physical constitution of all mankind. Hence, it is not a case of "meat eaters being vulgar" but one of "meat eaters being superior," for only by eating more meat can we build a superior physique. Of course, this cannot be done within a very short period; it must be pursued in keeping with the people's income and through a whole generation's strenuous struggle. But we already possess

the basic conditions to do so. China is a socialist country whose industrial and agricultural production and all economic enterprises are developing vigorously. Our people have rich experience in agricultural and animal husbandry enterprises. Our geography and climatic conditions are appropriate. Therefore, to reach such a goal is entirely possible and definitely not wishful thinking.

2. What strategy should we adopt regarding the animal husbandry industry? From the long-range point of view, it may consist of the following: cows, sheep, pigs, fowl, and miscellaneous animals. The "miscellaneous" category here includes horses, donkeys, mules, camels, deer, rabbits, bucks, bees, martens, and so on. But, speaking of today and speaking of a given period hereafter, pigs still rank first and fowls, second. Therefore, our present order should be: pigs, fowl, cows, sheep, and miscellaneous animals. Our animal husbandry enterprises must be developed in a comprehensive manner; but we must not neglect pigs. Except for the Hui nationality, the Chinese mostly have the habit of eating pork, and pigs can also provide large quantities of organic fertilizer. Our agriculture has four major fertilizers: chemical, barnyard manure, green manure, and cake fertilizer. We might study the experience of Denmark and other countries where they raise a lot of cows and pigs and rely mainly on manure. The problem today is that there is now a crisis in our country, as many peasants are unwilling to raise pigs and the number of pigs is decreasing. Especially in the northeast, raising a pig can hardly earn very many yuan. This problem must be carefully studied and properly solved. Today some places have started to practice open supplies and sales and let the market determine the prices. This has raised the pig price somewhat in order to encourage pig-raising; I am not opposed to it. Meanwhile, if we make a go of raising fowl, cows and sheep and reduce a little the portion of pork in our meat diet, that may be also necessary and reasonable. The raising of fowl can be undertaken quickly and the results are great; it can be developed rather quickly.

3. In developing our milk supplies we must adopt the strategy of working on both milk cows and milk goats simultaneously. In some localities, milk cows cannot be raised all of a sudden, but raising milk goats requires less investment and the skills involved are fairly simple; it is also quite convenient to raise them, so it should be developed faster. We can imagine that by the end of the present century even if we should fail to raise 10 million cows, we must raise at least 7 or 8 million; even if we should fail to raise 20 million goats we must at least raise 15 million. The next 30 years then may be divided into two stages; the first stage starts from 1985, first spending 15 years on making great strides in increasing the numbers of milk cows and milk goats while paying attention to improving their species and keeping under consideration both quality and quantity. The second stage is to spend another 15 years improving quality while at the same time quantity is being continuously developed so as to succeed in improving the variety. According to pertinent estimates, our needs would be basically satisfied if the country can have 20 million milk cows and 40 to 50 million milk goats.

4. What strategy should we follow in raising milk cows and milk goats? It should aim mainly at improving indigenous varieties and relying on importation only as an auxiliary measure. It takes only three generations to develop an

improved variety of domestic cows. Apart from importing necessary improved varieties of cows and goats, we may also buy embryos and semen. While we speak of importation as an auxiliary measure, we must never look down at this "auxiliary" step, because it is not enough to rely entirely on ourselves! We have discussed this matter for several years without getting anywhere; we should learn a lesson; otherwise the desired situation still cannot be brought about. Importing 10,000 cows costs us only 30 million yuan; we should be able to import 10,000 to 20,000 each year. This way, 5 years of importation would reap us 100,000. But how many more would these 100,000 again multiply? Why should we refrain from doing such an important thing that is beneficial to the national economy and the people's livelihood? The result and implication therefore of carrying out this importation a year earlier is very different from that of doing it a year later.

5. If we are to develop our animal husbandry enterprises in a big way, what kind of livestock-rearing policy we should adopt? We must not resort to stressing mainly state-run enterprises again, as we already have learned enough lessons in this regard. We should stress mainly specialized households, large specialized households, specialized joint households, and specialized villages, support the peasants to run such enterprises themselves, and support the localities to run them. This is to say, we must stress mainly individual economies, with a limited number number run by collectives while the state should devote itself in an all-out manner to service tasks such as technical guidance, technical promotion, improvement of varieties and prevention of disease. We must develop large specialized households and pay particular attention to summing up experiences in this respect. The kind of piecemeal livestock-rearing by isolated, single households may be undertaken; we need not oppose this; but we must promote the development of large specialized households and specialized villages. This is not to say that the larger the household the better; we must not resort to formalism. But we must realize that if large specialized households prosper, if each can rear many milk cows or tens and hundreds of goats, or hundreds and thousands of chickens, and if the whole village does the same thing, the transfer of advanced technology would be rapid, processing, purchasing and transportation would become far more convenient, the transformation of animal husbandry enterprises into commercial undertakings would be far easier, the service tasks of the state would become more effective, and the peasants would become well-to-do much faster. We should do some accounting by the standard of the 10,000-yuan household as to how many cows, goats and chickens each household must raise in order to attain that 10,000-yuan status.

6. Responsible departments at the central, provincial, regional and municipal levels must all get a handle on the tasks of exploiting and promoting advanced technology in animal husbandry enterprises, and place this matter in the primary position in developing our animal husbandry enterprises. If we are deprived of advanced technology and hence still depend on those backward or even primitive production methods, large-scale development of China's animal husbandry enterprises will be impossible. We must earnestly study and master the advanced techniques in various links of the animal husbandry production and processing process, including fostering good species, breeding and feeding, disease prevention, grass feed and foodstuff feed, and comprehensive processing and thereby effectively promote them. The animal husbandry and



veterinary technical stations in the countryside must also not aim at simple and uniform undertakings by handling only single-item techniques, but should turn themselves into comprehensive technical stations. We must establish a contract system that combines technical service closely with economic results and explore a whole system of advanced management approaches. We must strengthen the fostering and training of animal husbandry personnel, operate more secondary technical schools, and reform their teaching methods. In the meantime, we must also establish a reward system to grant awards to units and individuals that achieve results in rendering their technical services. Those who are really fine and outstanding may be awarded 10,000 yuan or more. In sum, we must resort to the contract system, strengthen the training of personnel, and implement a reward system; we should grasp all three of these points.

7. There is yet another problem, and that is to plant grass in a part of our hilly, sandy, or even farming land and turn them into grasslands in a planned and orderly manner. Today we are doing well on food crops and cotton; our countryside enjoys a surplus of labor; if many places can plant grazing grass in their hilly, sandy or even farming land, the benefits would be numerous. First, they can assure us of grass feed and foodstuff feed; secondly they can provide a rational deployment for the use of our labor in the countryside and in the three-in-one integration of agriculture, forestry and animal husbandry; and thirdly, they can improve and beautify the environment. Take Zhangjiakou as an example: if we fail to accelerate planting grass and trees there the consequence would be that not only the local climate but even the climate in Beijing can hardly turn for the better; it will, as a matter of fact, turn more and more for the worse. As I see it, many places in the country should pay attention to this problem; not only the northwest, but even certain highly developed farming regions should likewise study and plant grass in some area. For instance, when I went to northern Jiangsu recently, Siyang County there had relatively more land; it may well set aside a small part of its farming land to plant grass in order to run some experimental points in the villages first.

8. Concerning leadership methods: Insofar as our comrades are concerned, 99 percent of them are good ones; this is beyond any question. But there are serious problems concerning working methods and leadership methods. The first is their lack of modern scientific and technical knowledge; this is a common phenomenon, with ourselves being no exception. Even if they have some knowledge, it is often rather old, piecemeal, and often incomplete. Thus, he who works on wheat would not know anything about flour processing; when the number of pigs decreases, no one would know its causes; the production worker would be ignorant about management, and so on. Those who know one or two things, but not three or four, are even more numerous. This is to say that the limitation and partiality of our knowledge are very serious; it is not scientific and comprehensive enough; many idiosyncratic habits of making things simple and partial in our work all stem from here. A second trouble is too little understanding of actual conditions. Our country being so big, if we issue too many directives and orders while seldom studying and investigating things, we would then be unable to guide operations or avoid falling into traps. In one year, you should reduce directives and orders by one-half; your area of investigation and study should be quite broad, and you



should do your best to shun superficiality and triviality and enhance your discernment. A third trouble is the frequent lack of decisiveness, with no decision made while a decision is called for. If we keep on studying and studying, discussing and discussing, while lacking freshness or a sense of urgency, then the objective will be difficult to achieve. Today, the spiritual state of some of our comrades simply won't do; they must conscientiously change their spiritual state, and change their working methods and leadership methods. Since we make up our minds to bring about a new situation, we should say what should be said and decide what should be decided, criticize what should be criticized and replace what needs to be replaced. To serve the people and the state, we must have a dauntless spirit of devotion.

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NATIONAL

# HE KANG STRESSES RURAL COMMODITY ECONOMY

Beijing NONGYE JISHU JINGJI [ECONOMICS FOR AGRICULTURAL TECHNOLOGY] in Chinese  
No 12, Dec 1984 pp 1-5

[Article by Minister of Agriculture, Animal Husbandry and Fishery He Kang  
[0149 1660]: "Intensify Reforms, Readjust the Composition and Promote the  
Growth of the Rural Commodity Economy"]

[Text] 1984 was a year in which rural reform developed in depth and breadth: it was a year in which agricultural, animal husbandry and fishery sectors further corrected their professional leadership ideologies and got started on reforms through party consolidation; and it was a year in which those sectors produced and sustained overall growth, achieved bumper harvests and experienced great expansion of commodity production. According to statistics for the period up through September, with the exception of a slight drop in tea output and continued declines in sheep production, there were various degrees of growth in grain, cotton, oil crops, sugar crops, silk, tobacco, hemp, meat products, cow's and goat's milk, eggs and aquatic products. The 1984 estimates are as follows:

Grain:	788.8 billion jin--up 1.8 percent
Cotton:	106.91 million dan--up 15.3 percent
Oil Crops:	221.78 million dan--up 5.1 percent
Sugar Crops:	898.58 million dan--up 11.4 percent
Meat Products:	29.22 billion jin--up 4.2 percent
Aquatic Goods:	may pass 6 million tons--up 540,000 tons

According to statistics for 21 provinces, autonomous regions and municipalities, egg production is estimated to rise by 12.1 percent, and, of this, there will be a 16.2 percent increase in the 6 large and medium-sized cities. The quantity of sheep has declined by 20 million head in the past two years and is expected to decrease another 4.96 million head in 1984. The quantity of swine has basically stabilized, declining in some regions and rising in others. Right now the distinguishing feature of agricultural, animal husbandry and fishery production is constant readjustment of composition and distribution based on market needs. An excellent situation is beginning to emerge, in which economic results and product quality are stressed. The area of land devoted to grain cultivation has declined but the total output has increased; land area devoted to autumn grains (primarily coarse grains) has declined and

summer grain (primarily wheat) land area has increased; double-crop paddy area has decreased and single-crop semilate paddy has increased; inferior paddy varieties have decreased and superior paddy has increased. The quantity of live swine on hand has declined and the slaughter rate has increased. The pace of growth in township enterprises, cultivation enterprises and aquatic product enterprises has been brisk. In the past few years the gross output value of township enterprises has increased by an average of 14.5 percent per year, in 1983 it increased by 17.2 percent over the previous year and in the first half of 1984 it increased by more than 20 percent over the same period of 1983. Family farms, family industries and family fisheries have expanded notably. It is safe to say that agriculture is advancing toward multipurpose operation and comprehensive development.

At the same time, agricultural development is faced with a few problems: First, there are grain overstocks, an urgent need for change and cotton output in excess of demand. Second, agricultural composition needs to be readjusted in order to suit the new state of commodity production. Third, there is uneven development in agriculture and in rural industry: animal husbandry, aquatic products industries, processing industries and service industries are lagging behind. There are still more than 200 counties and 60 million people nationwide that are living in poverty and are backwards in production. Fourth, work in agricultural, animal husbandry and fishery sectors is ill-adapted under the new trend of expanding commodity production. These problems are ones which are encountered as agriculture develops and advances; they are new problems produced under new circumstances. As we resolve these problems we will move toward a glorious future.

Through 5 years of reform the countryside has already achieved great success. The 3d Plenum of the 12th CPC Central Committee that was convened recently, and the resolution drawn up there on restructuring the economic system, arranged for comprehensive economic reform. As Comrade Deng Xiaoping has pointed out, "China is moving toward a new phase of reform." Rural reform promotes urban reform, and the full development of urban reform likewise must impel the emergence of a new upsurge in the rural economy. Under this new trend sustained growth in agriculture, animal husbandry and fishery is both a challenge and an opportunity. Urban and rural reforms are mutually and intimately coordinated and are inevitably conducive to the resolution of problems that arise in the process of development.

#### On the Problem of Grain Conversion

The switch from grain to livestock products and processed foods is both a difficult problem and an inevitable trend. The process of this grain conversion is a change from the primary agricultural product to advanced products, a process in which agricultural production conducts intensive processing on raw products and raises their value several times. This is just the inevitable result of a switch from self-sufficiency and partial self-sufficiency to commodity production in Chinese agriculture, and from traditional agriculture to modern agriculture. It is the inevitable result of development in the rural forces of production. As this transformation develops we will achieve agricultural industrialization and rural urbanization.

In about 70 years time, the United States between 1910 and 1980 raised the proportion of their investment in pre-production means of production from 11 percent to 48 percent, lowered the proportion of their output value represented in the agricultural production process from 54 percent to 10 percent and raised the proportion of their output value represented by post-production processing of agricultural produce from 35 percent to 42 percent. This transformation enabled the United States to achieve agricultural industrialization. Now Chinese agricultural production is also facing this historic transformation.

In practice, this transformation that we speak of is a switch in all areas of agricultural production from unprocessed to processed products, from rough machining to finish machining and from a low level to a high level of sophistication in the composition of agricultural output value.

Acceleration of this switch in grain production is a major condition for agricultural doubling in China, and it is the only way for us to launch a diversified economy, expand township enterprises, tap new sources of production and enrich the peasantry. It would help us achieve agricultural industrialization and rural urbanization, as well as to change the distribution of food and the composition of consumption. Both in theory and in practice, we should improve our understanding of the crucial significance of expediting the grain switch and we should enhance scientific management and administration, increase the material investment in agriculture, raise the level of value added through processing and ensure that our work and reforms in every area are constantly in conformity with the needs of this change.

Chinese agriculture is already in possession of the conditions for this transformation. Grain has begun to be overabundant, especially in terms of corn overstocks, and we are in possession of the material foundation and the basic conditions for change. Animal husbandry and aquatic breeding resources are abundant and possess enormous potential--they are the greatest means for this change. China is a large nation of 1 billion people, and after the grain conversion there will be correspondingly widespread consumption of livestock products and processed foods. Agricultural (animal husbandry and fishery), industrial, commercial and township enterprises have already reached a certain scale and are a major means of promoting this switch. Practice also has shown that China has a number of good models for change. Therefore, at the moment the circumstances for expediting the transformation are very good, and the grain-selling difficulties that have appeared temporarily are really a "propellant" for change. If we cannot clearly see this major trend in agricultural development, and if we cannot make the best use of the situation to promote change, then agricultural production in China cannot continue to advance.

What are the factors currently affecting change? One factor is that our ideology and abilities are incompatible, and this is crucial. For many years now it has been our custom to "minimize, supervise and stifle," or one could say that we have concentrated on linking up parts to form a whole. The situation now requires us to "diversify, relax supervision and stimulate," and we are not experienced in this. We lack the ideological preparation for a

situation of large-scale growth in grain production, and our work in the areas concerned has been unsuitable. A second factor is that the price of livestock products is low and the price ratios between grain and livestock are inequitable. In the past it was said that "raising pigs is not profitable, and people soon return to farming." Now it is even more true that raising pigs is not as worthwhile as selling grain at increased prices, so more people sell grain and fewer raise pigs. A third factor is that livestock products production is divorced from sales, and fodder production is not coordinated with the production of livestock products. There are many links in the chain between the two and waste is rife: producers and consumers are both in an unfavorable situation. A fourth factor is that the development of specialized stock-raising households is affected by weaknesses in services such as feed processing, the breeding of improved varieties, livestock and poultry disease control, purchasing, transportation, sales and so forth, so that it is difficult for them to bring into play the benefits of economies of scale. A fifth factor is that the basic facilities for commodities production cannot keep pace. Storage facilities, refrigerated cars, slaughterhouses and conveyances, in particular, fall far short of satisfying demand. The sixth factor is that production of livestock products is still limited by a low level of consumption.

On the one hand, we must stress study and resolution of the above problems, and at the same time we must seize upon the feasible methods presented here and work vigorously to do a good job of promoting grain conversion. The major steps are as follows:

1. We must strive to develop small-scale, local, locally managed industries to process feed, foodstuffs and livestock products.
2. We must support the development of specialized stock-raising households and establish bases for producing livestock products and foodstuffs. Breeding of improved varieties, feed processing, and epidemic disease control in livestock production, as well as refrigerated storage, slaughtering, processing, transport and sales must form a seriation system that is suited to commodities production. Service systems must be established in complete sets and be relatively centralized, must easily play a guiding role and must be convenient for the development of services.
3. We must utilize economic leverage, support expansion in the feed and foodstuffs industries and regulate the relationship between production and sales. We must progressively unify production and sales and make a direct connection between industry and herding and between herding and trade.
4. Proceeding from the actual situation in each locality, we must emphasize the focal points of the transformation and make a breakthrough as quickly as possible. From a national perspective we must plan to focus on solving poultry, egg and milk production problems for the cities in the next 3 to 5 years.
5. Storage by the people rather than by the government, interest free grain loans and the use of grain to carry out the practice of providing work as a form of relief should be vigorously popularized.

6. We must energetically work to create the conditions for increased grain exports.

#### On the Problem of Readjusting the Composition of Agricultural Industries

Comrade [Hu] Yaobang has recently pointed out that "When we speak of doubling, we do not mean doubling based on the original composition but rather the need to have a new composition with a new implication. It is not acceptable for us to rely merely upon grain and cotton for doubling: we must employ a new viewpoint to guide the development of agricultural production. If we employed old experience, ideology and technology to guide the process, production might continue to drop off, and if production stagnates or drops off it will be a major problem. Readjustment of the composition of agricultural industries is the result of development of the forces of production. It is necessary for commodity production and it is a requirement for raising our level of consumption and changing our way of life. Readjustment of agricultural composition is a major undertaking that concerns the entirety of national economic development.

The guiding ideology behind readjusting the composition of agricultural industries should be as follows:

We must not slacken grain production, but we must gain suitable control of cotton production and strive to expand animal husbandry, aquatic breeding industries and processing industries. In readjustment we must suit measures to local conditions, adopt different regional policies for different areas and practice guidance according to classification.

##### 1. We must not slacken grain production.

In the past few years grain production in China has increased quite rapidly and our grain situation has begun to take a turn for the better. In 1983, state procurement, purchases of overstocks and negotiated grain purchases nationwide totalled 197.6 billion jin (trade grain), which is nearly double the figure for 1978. The percentage of marketable products also rose from the previous rate of 20 percent to 30 percent. This year it is estimated that state procurement, purchases of overstocks and negotiated grain purchases nationwide will reach 200 billion jin (trade grain).

However, China's grain problems are far from being resolved. In 1983 the per capita ownership of grain in China was still lower than the average level worldwide. The levels of meat, poultry, eggs, milk and fish consumed were also very low. On a national scale grain production is still unevenly distributed across regions and is unstable from year to year. Although grain ration problems have been alleviated, grain varieties still need to be adjusted, quality must be improved and fodder grain is markedly deficient. Although there are currently overstocks of corn in the northeast and other regions, even if those localities switched to fodder production and employed it to expand animal husbandry, the demand would still be far from satisfied. The quantity of fodder consumed in developed nations should represent more than 50 percent of their total grain consumption, but in China the quantity

of fodder consumed in 1983 represented only about 12-14 percent of the total grain consumption. In 1982 the grain used for fodder in Beijing, Tianjin and Shanghai represented 32-36 percent of total grain consumption. If this level was achieved nationwide, we would need 300 billion jin of fodder grain per year--twice the current level. As a result, grain selling difficulties are appearing now in some localities. Whether this is a temporary low-level grain surplus because grain conversion has not yet been completed, or whether the surplus is a problem of composition, in actual fact there is not too much grain. As we readjust the composition of agricultural industries, we cannot slacken up on grain production. We must safeguard enthusiasm for grain farming, and, under the premise of guaranteed grain production stability and continued growth, we must strive to develop animal husbandry, aquatic breeding industries and foodstuffs processing industries.

2. We must gain appropriate control of cotton and develop economic crops and commodities that are suitable for sales. We absolutely must control cotton output or its producers will suffer losses:

In the past few years cotton production has increased on a broad scale in China, and in 1982 we achieved a balance of supply and demand. In 1983, 92.74 million dan of cotton was produced altogether, 90 million dan were purchased, a total of 65 million dan were expended in in various domestic cotton uses and net exports totalled 1 million dan. The surplus amounted to 24 million dan, so we switched from importing to being more than self-sufficient. It is estimated that gross output in 1984 will exceed 100 million dan, and that for 1985, in addition to that portion of raw cotton used domestically for various cotton uses and that exported, the nation will still have excess cotton in storage. If cotton production continues to rise vigorously and the state has a storage surplus year after year, there will be public finance and storage problems. Ultimately we must reduce cotton purchases and thus inevitably damage cotton farmers' profits and dampen their production enthusiasm. Consequently, we must appropriately readjust our cotton procurement policies, reduce the area under cotton production, control cotton output and guide peasants to switch to other crops that are suitable for sales and that bring higher profits.

The main thrust of cotton production must be quality. In the 1950's the single-strand strength of Chinese cotton was 4 g and it rated 1.7 to 1.9 in degree of maturity. Now, the strength of our cotton has fallen to less than 3.5 g and its maturity to below 1.5. The quality is deficient and thus it does not sell well. At present there are 142 cotton cultivars in China, more than in any other nation. I strongly urge the use in 1985 and 1986 of varieties that are presently of rather good quality--Hebei Cotton No 1, Henan Cotton No 1, Shandong Cotton Nos 2 and 3 and so forth--to replace Shandong Cotton No 1 and other inferior hybrid varieties. We must strive to bring about a basic change in cotton quality within 5 years by breeding and importing new varieties.

We must construct a planned, superior cotton production base. The initial program should construct 50 superior cotton base counties, cultivate 20 million mu and be able to supply 20 million dan of superior spun cotton and



and 2 billion jin of superior cotton varieties during the course of the Seventh 5-Year Plan. Right now, because the number of superior cotton varieties is small, we intend to first select 20 county test sites and adopt corresponding support measures in the 6 cotton transporting provinces and autonomous regions of Hebei, Shandong, Henan, Jiangsu, Hubei and Xinjiang.

3. We must strive to expand animal husbandry, aquatic breeding and farm and livestock product processing industries, as well as the various corresponding service industries.

The potential in this area is great. Our agriculture, animal husbandry and fishery sectors should progressively shift the emphasis of their work to the expansion of animal husbandry, aquatic breeding and farm and livestock breeding industries.

4. We must suit measures to local conditions and provide guidance based on categories.

In readjusting the composition of agricultural industries, we absolutely must proceed from the actual circumstances in each locality. We must clarify different readjustment priorities and adopt different specific policies for economically advanced areas, underdeveloped areas and intermediate areas, and for farming areas, animal husbandry areas, mountain areas and suburban areas. We must carry out guidance according to category.

#### On the Problem of Reforms in Agriculture and Animal Husbandry

Under this new trend, we must foster a sense of urgency and duty with respect to work reforms in the various sectors. We must transform our ideology and make reforms bravely to bring our thinking and our work into line with the changing economic base as quickly as possible. We must press forward in the face of difficulties and launch new undertakings. We must not just keep shop and maintain what has been achieved by our forefathers or be afraid of trouble and refuse to advance. Experience from all over indicates that we need only to seize upon work reform in the various sectors and a vigorous, flourishing work situation will appear. The reforms facing us in the agricultural and animal husbandry sectors must proceed from their actual individual situations. Within a certain time frame they must have their own particular emphases and be implemented by stages, step by step.

1. We must simplify administrative powers, separate politics from enterprise and strengthen economic entities. In order to avoid incompetent management of its proper affairs, the work of the administrative sector should not be all-inclusive. In order to avoid producing corruption, we cannot lump government with commerce or politics with enterprise. The administrative sector can only break free of its overwhelming daily undertakings and transform itself from a model of administrative command to a model of economic service if we separate politics from enterprise and government from commerce, provide keen and capable administration, strengthen enterprises and delegate proper authority to enterprise. Only then will the administrative sector be able to conceive and handle major affairs, enhance its service work and augment



leadership and control in macroscopic areas. And, only then will we grant force, impetus and vitality to enterprise, impel enterprise to transform its production technology and operational management and augment our competitive capabilities.

2. We must readjust and reorganize the work of service systems. In the past, conventional services were far from suited to the task of developing commodity production, achieving doubling, enriching the people or proposing new and higher demands on agricultural and animal husbandry technical services. The current trend is unfolding in the wake of large-scale commodity production and has already expanded from a unitary technology to a comprehensive technology, from traditional technology to modern technology and from production to management. Labor services, skill development, capital, insurance and other new service fields have also appeared. We should closely observe this transitional change in agricultural and animal husbandry technical services, readjust and reorganize the work of service setups, improve the level of services, establish economic entities and strengthen construction in the ranks. We should form service setups and networks that are diverse in economic composition, at multiple administrative levels, socialist in nature and of operational types.

3. We must strengthen rural intellectual development and coordination of the "three agricultures" in agricultural work. The key to developing a modern economy is in having a large contingent of skilled personnel who understand modern scientific technology. Offices (or bureaus) of agriculture, animal husbandry and fishery must enhance their leadership of agricultural institutions of higher learning. The offices of agriculture, animal husbandry and fishery must do a good job of organizing coordination among the "three agricultures."

We must accelerate readjustment of specialties in secondary education, reform new-student recruitment and assignment methods, revise the educational system and implement diverse forms of school administration. We must turn to rural specialized households and township enterprises to train skilled personnel based on the needs of the countryside. We must adopt dual student recruitment and assignment methods that are either state-directed in both endeavors or consist of new-student recruitment, but not assignment, by the sectors themselves. In 1983 Jiangsu tried out a student recruitment method at agricultural polytechnic schools all over the south under the slogan "Turn toward the countryside; employ directed student recruitment, county quotas and independent testing; and choose superior recruits." More than 800 students were recruited, a total of over 57,800 people actually applied and took the test and 5,700-plus people were re-tested. This method was well received by the vast number of peasants and can be provided as a reference for various localities.

We must continue to stress training for leading agricultural cadres and continuing education for scientific and technical agricultural personnel. In line with the demands of the central authorities, by 1990 we must complete the training of cadres under 45 years of age who have not attained a polytechnic secondary education. As for renewed education to update the knowledge of the more than 300,000 scientific and technical people we have at present, we must

adopt methods to suit jobs to special training and organize training according to agricultural, animal husbandry, scientific and educational systems. We should continue to rely on agricultural senior middle schools and colleges and universities to carry out cadre training, and we must construct good agricultural cadre colleges so that cadre education will move toward standardization.

We must enhance vocational and technical education work for peasants. Nationwide, nearly 80 percent of all young peasants have more than an elementary education. There are 120 million people in the countryside who have graduated from elementary or senior middle schools. The agricultural sector must formulate a program for peasant technical vocational education. They must construct a good training base and set up good central agricultural broadcasting schools. We must organize rural youth to conduct self-study tests in agriculture at the higher and secondary education levels to encourage them to study and become skilled on their own. We must progressively define the vocational and technical level required of specialized households and formulate methods and corresponding policies for assigning official titles to technical farming personnel and agricultural technicians.

4. We must further readjust and complete organization facilities, strengthen construction in the ranks and improve cadre quality. Organization facilities must be compatible with the new tasks facing us. Currently we particularly need to enhance work in information advisement, policy research and product testing, as well as in product standardization.

We need to renew study, and we must especially stress study of modern economic science, operational management, the market economy and economic laws and regulations. We must concentrate on investigative research, on summarizing new experiences and on guiding our work.

12510  
CSO: 4007/270

NATIONAL

#### FORESTRY MINISTER OUTLINES REFORM MEASURES

Beijing ZHONGGUO NONMIN BAO in Chinese 20 Dec 84 p 1

[Article: "Minister of Forestry, Yang Zhong, Discusses New Measures To Speed Up the Pace of Forest Reform"]

[Text] In order to adjust to the new situation using cities as the focal point of the restructuring of the entire economic system, on 17 December at the National Forestry Propaganda Work Conference, the Minister of Forestry, Yang Zhong, discussed moving a step forward by relaxing forestry policies, engaging in live forest zone economy and accelerating the pace of several new measures of forestry reconstruction.

The collective contract which grants individually managed forest land will give more favors in investment and distribution to managers. For private and assigned hillside lots, we should allow personal initiative for the masses to plant whichever trees and use whatever cultivation methods enable them to support long term growth with short. We must adopt many types of measures to ensure that the labor gains of the forest industry do not drop below the earnings of other plant industries.

By abolishing the collective forest zone's task of the centralized procurement of timber, all prices and expenditures for timber yield are to be negotiated according to the market and free trade. Local and central governmental departments should not disguise centralized procurement or use other methods to buy at reduced prices, and thus deprive the masses of their legitimate benefits. The major portion of the collective forest gains, other than those used to pay state tax revenue or withheld for production costs and necessary funds, must be given to the masses.

After completing the task of state centralized and assigned procurements of private products everywhere, we must firmly expand and open up, and the lower echelons cannot remain closed while the higher levels liberalize. The bamboo and wood market of forest zones and adjacent counties must have leadership and a systematic opening up of land. Under the premise of strengthening forest administrative supervision, we must liberalize products, increase channels, reduce links, and break

up areas and obstructions to trade circulation. Regardless of whether the forest products are state run or collectively managed, the major portion of profits must be returned to the masses and not allowed layer after layer to be peeled away.

With more than 4000 state-run forest markets and 170,000 cooperative markets, we must work hard to change the single production structure and low condition of economic benefits, transform the closed type of production into an open style of commodity production, implement comprehensive management of forest industry and commerce and develop in the direction of specialization, commercialization and modernization.

There are more than 30 million mu of uncultivated state land on slopes steeper than 25 degrees which must be turned back into forest land. In order to make this workable, in addition to depending on individual governmental departments to adopt measures, we must guarantee that the food rations and earnings of hundreds of millions of farmers with redeemed forest land will not be reduced and must continue to open up land. Forestry departments must actively help local governments by creating investments for forest and grassland in the national forest regions, use basic construction capital for water and soil conservation funds and forest production, etc. and return uncultivated land into combined forest and grassland.

Minister Yang Zhong said that currently our national forest industry is in the process of undergoing an historical reconstruction and conditions are good. This year the state created nearly 100 hundred million mu of forest land. The 4 million specialized forest households and economic associations serve as scientifically managed forest industrial units, advancing forestry industries towards specialization, developing commercialization, establishing models and providing experience. As long as we follow the Central Party's deep resolve of restructuring the economic system, continue to thoroughly eliminate "leftist" influences, work hard to reform, and bring forth new ideas, it is certain that we will arrive at a Chinese style path in developing the forest industry.

12883

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NATIONAL

# OVERALL STATUS OF GRAIN PRODUCTION DISCUSSED

Beijing NONGYE JISHU JINGJI [ECONOMICS FOR AGRICULTURAL TECHNOLOGY] in Chinese  
No 1 Jan 85 pp 13-15

[Article by Ding Shengjun [0002 5116 0193] of the Ministry of Commerce Economic Research Institute: "Several Strategies For China's Grain Production"]

[Text] Recently, there has been the view that China's grain surplus, after revenue and expenditure are balanced, is an "excess of grain" or a "relative excess." Proceeding from this basic estimation some people have proposed decreasing the grain output, while some have proposed "adopting the measure of the state subsidizing peasants who let their land lie dormant." In some areas, people even doubt whether being orientated towards agriculture is correct. All of these point to an important question: Is the basic viewpoint of agriculture out of date, and does grain production still need to be stressed? This is an important question in China's present agricultural policy. Correct estimation and understanding of the situation is the starting point for carrying out correct policy. At the present time, there is a need to make an analytic judgement of China's grain situation that conforms to reality and is totally correct.

In the last few years, all rural industrial production, especially commodity production, has undergone rapid development. In comparing the years 1983 and 1978, 1983 showed an 89.2 percent increase in the gross output value of agriculture [GVAO] and a 24.7 percent increase in grain output. In 1982, the total output of grain in all of China reached 800 billion jin, the number of provinces and cities that had to bring in grain decreased to nine, and the number of those shipping grain out increased to 20; this amounted to a large decrease in the amount of grain brought in and a sharp increase in the amount shipped out. The national supply and demand situation of grain made an abrupt change; the balance in supply and demand plus the comparatively large surplus brought to an end the past record of China's grain supply not meeting demands for many years. This unprecedented achievement was not easily accomplished. We should cherish it and keep a clear head in this excellent situation, and the surplus grain should not be called "excessive."

What is meant by "excess?" In economics "excess" is when a product far exceeds the limits of demand and there is a large surplus. Has the grain in China already far exceeded demand and therefore can it be termed "excessive?" The answer is no.

1. China's level of grain production is low and not balanced.

Of the present grain fields throughout the country, two-thirds are moderate or low yield fields. In the border regions of northwest Shanxi, northwest Shandong, eastern Henan, western Hubei, northern Shaanxi, southern Shaanxi, Yunnan, Guizhou, Sichuan, and the area of Ningxia's Haiyuan, Siji, and Guyan counties, the rural population's per capita grain production was only 600 jin, much lower than the national average. Even in the high producing southern regions there is a rather large amount of low producing fields, totalling 100 million mu or more. Statistics for 1983 show that 60.9 percent of the total grain output in all of China and the vast majority of grain purchased by the state was concentrated in less than 30 percent of the nation's counties. Something else that cannot be ignored is that grain production, along with all of agriculture, is connected with nature, and China's grain production still does not have a strong capacity to withstand natural calamities. So in analyzing the grain situation the above conditions must be taken into consideration.

2. The nation's grain consumption level has remained in the primary phase.

The regular pattern of grain consumption is: the first stage is mainly for satisfying the masses' needs in "quantity"; the second stage is the gradual satisfying of the needs for "quality." The first step is the primary phase, the second step is the higher level phase of progressively and reasonably increasing animal food products. In grain consumption we should smash the traditional viewpoint of merely regarding it as supplying a grain ration, and establish the viewpoint of changing from grain and improving the food structure of the masses. Presently, numerous areas throughout the country have solved the grain ration problem, but this is only the preliminary phase and their level of grain consumption is still low. During 1983, the average per capita consumption of staple and nonstaple foodstuffs included 569 jin of grain but less than 40 jin of meat, eggs and fish. For the 9 provinces (Jiangsu, Zhejiang, Jiangxi, Hubei, Hunan, Sichuan, Liaoning, Jilin and Heilongjiang) whose per capita grain production was over 800 jin, the average grain consumption was only 652 jin while the average consumption of meat, eggs and fish was less than 50 jin. As one can see, the food composition of the Chinese people especially the vast numbers of peasants, is still very simple. From now on, along with the gradual change in the people's food composition, the demand for grain will also greatly rise. For a comfortable standard of living, each person would need roughly 1,000 jin of grain (grain ration, grain used in industry, feed grains, reserve grain, seed grain and grain wasted) per year. The people of China are still far short of this standard. When analyzing the national grain situation there must be foresight concerning this point.

3. Throughout the country there are still several areas with populations in the millions that must solve the problem of having enough to eat and wear.

Generally speaking, there are still shortages of food and clothing in the "border, remote, backward, minority and mountainous" areas that have difficult communications, harsh natural conditions, and where the population totals over 80 million. In these areas, the grain ration in the southern areas is less

than 400 jin, the grain ration in the northern areas is less than 300 jin, and the average income is less than 100 yuan. These poor areas urgently need to solve the problem of adequate food and clothing. According to reports from Sichuan, there are currently 20 million people throughout the province that have a grain ration below 400 jin. Moreover, because cultivated land that has a slope of over 25 degrees has been returned to forest or animal husbandry, the entire province must reduce its purchases by 2 billion jin and increase its sales by 1.4 billion jin. If each person in the poor regions throughout the country increases his average sales by 100 jin (this amount is not considered to be excessive), then only 80 million people would be needed to increase sales by 8 billion jin; this would not include the loss of farm land with over a 25 degree slope that was returned to forestry and animal husbandry. Since millions of people still need to solve the problems of adequate food and clothing, it is still too early to say that we currently have an "excess of grain" or a "relative excess."

4. A large part of the increase in warehoused grain China has had in recent years is from imports.

Presently, many areas are having real problems in storing grain, even to the point of leaving large amounts outside in the open. There are many reasons for this, such as inhibited grain circulation channels, insufficient storage facilities, consumption being restrained and so on. Something that also cannot be ignored is the important role in the balance of expenditure and revenue that the large amount of imported grain that replaced domestic produced grain played in the grain warehoused by China in recent years. From 1980 to 1983 China imported over 100 billion jin of grain, which caused a marked increase in the state's grain reserves. From now on, along with the decrease in grain imports, increased exports, and expansion of grain sales within the country, the pressure on grain storage will also be decreased. In short, we must not overlook the great effect imports and exports have on the grain situation.

Moreover there is still an insufficient amount of grain stored in China's vast countryside. A country with a population of 1 billion, 800 million of them peasants, must establish various forms of grain reserves. The state must have grain reserves but they must be in a realistic amount; and the vast countryside must have sufficient grain reserves. Currently, grain reserves in China's vast countryside vary. In areas that concentrate on grain production and have a large amount of cultivated land and a small population, the grain reserves are comparatively large. It is estimated that these rural areas have an average per capita grain reserve of up to 400 jin. The average for the rest is about 200 jin. In other words, the majority of areas only have an average grain reserve supply of 3 or 4 months. No matter how it is stated this can not be considered a large reserve.

In summation, China's grain is not currently greatly exceeding demand and consumption needs are not being completely met. Therefore, we cannot say that it is "excessive" or even "relatively excessive."

But things are complicated. In soberly and comprehensively realizing that the grain situation is very good but definitely not "excessive," we must also



acknowledge that in some areas, peasants have "difficulties in selling grain," and the state has "grain storage problems" and "problems in transporting grain." After acknowledging these problems, we must then proceed to adopt strategies that are geared to the actual circumstances. We believe that proceeding from the basic appraisal above, we should adopt the following strategies.

First, actively promote grain conversion and expand grain consumption.

Originally, the proportion of animal husbandry in China's farming, forestry and animal husbandry production was very small. Because the level of grain production at that time was low, its supply did not meet demand and problems were manifested as inadequate supplies. Following the swift and violent development of grain the supply has exceeded demand and surpassed the amount needed for animal husbandry. Therefore, we should develop animal husbandry even faster and promote grain conversion in order to rationally improve the people's food structure and expand grain consumption. For grain conversion, we should first stress making changes in local areas. Peasants by processing grain into feed and developing the livestock and poultry raising industry can transform grain into meat, eggs and milk products, and can also increase its value and raise their income. Second, we should give full play to the various social forces in promoting grain conversion. Agriculture, animal husbandry, light industry, aquatic production, foreign trade, supply and marketing cooperatives and rural and small town enterprises all have the conditions and power to promote grain conversion; we should support them in carrying out this work. Third, actively help specialized households and villages develop livestock raising, help them set up the "four mills" for bean noodles, bean curd, soy sauce and oil, and utilize surplus grain to produce more meat, eggs, milk and other foodstuffs. Tianchang County of Anhui Province changed from predominately grain production to predominately livestock and poultry, which promoted grain conversion as well as a good cycle in agriculture production. In the last few years, that county has used 120 million jin of grain and 390 million jin of forage grass in developing livestock farming. During 1983, there were 38,000 head of large livestock, 388,000 hogs and 3.56 million poultry raised throughout the county, thus realizing "three surpluses" in its raising of hogs, cattle and poultry, "three surpluses" in purchase quotas, and "three improvements" in the peasants income, economic results and output value of livestock farming. For 1983 the gross output value of animal husbandry reached 50,170,000 yuan, an increase from 13 percent of the GVAO in 1982 to 21.7 percent in 1983.

Second, clear out the channels of circulation between towns and the countryside, open up the market for selling grain.

Production, exchange, distribution and circulation are an organic and integrated process of society's production. Production is the starting point and consumption the end, with circulation in between. Production determines circulation, but under certain conditions circulation also plays a role in determining production. China's grain development has reached a new state; the grain circulation system that was formed in the 1950's is definitely not suited to present needs and must be reformed. A lot of time must be spent on making it "flexible." For this reason, circulation channels between towns and the countryside should be increased, more forms of circulation should be used, more administrative



levels should be involved, and the links in the chain of circulating grain should be reduced. The state, collectives, and individuals should together form an integrated circulation network that extends in all directions. To promote coordination of production and marketing, trade centers can be established in traditional collection and distribution centers. Also, in order to enlarge circulation of grain, grain banks can be set up in medium and small sized cities and towns. In free trade grain markets we should respect price laws, relax price controls, let prices be set by the market, have quality price differences, regional price differences and seasonal price differences. In this way, after invigorating grain circulation, an even more widespread market for grain sales can be opened, sales can be increased, the masses of consumers can be satisfied and we can favorably resolve the difficult problems in grain work.

Third, adjust the grain production structure to suit the consumption structure.

Grain consumption changes in accordance with objective laws. As the problem of adequate food and clothing is resolved, on the one hand the people's requirements for quality grain, rice and flour will increase; while on the other hand, their needs for meat, eggs and milk, which depend upon conversion of grain and other plant feed, will also continuously increase. Once the grain consumption structure undergoes this change, the grain production structure will not be totally suited to it. For example, the Northeast ships out a large amount of corn, but at the same time it must bring in huge quantities of wheat and rice. The South has large amounts of excess long-grained rice but its supply of round-grained nonglutinous rice is still short of demand. Another example is the surplus of average quality wheat but an acute shortage of good quality wheat used in the manufacture of high quality grain products. Therefore, in adjusting the grain production structure, raising the quality of grain is one of the ways to resolve the new problems in the current grain situation. Producers, especially commodity producers, should acquire a market mentality, and under the prerequisite of having a rational plan for grain crops, cash crops and feed crops, appropriately adjust the grain variety structure; in rice producing areas they should increase the amount of acreage planted with round-grain rice; in grain producing areas they should expand the production of good quality wheat; in the Northeast the growing area of soybeans should be increased; and in traditional producing areas the production of name brand and special food grains should be revived and developed. This way, the grain production structure will suit the structure of consumption and grain products will be suited to the market, which will satisfy demands of consumption and open vast vistas for the development of grain production.

Fourth, do not lose this golden opportunity to adjust the rural economic structure; strengthen the internal driving force for rural development and grain conversion.

To suit a specific social economy and specific technological conditions, a specific economic structure is required. A new change has occurred in China's rural social economy during the last few years that needs a suitable new rural economic structure. What we refer to as the rural economic structure is not simply the rural economic structure but has even more connotations and meanings. The first of these is agriculture in a narrow sense, namely the crop industry;

second is agriculture in a broader sense, namely the planting, forestry, animal husbandry, sideline and fishery industries; third is the entire rural economy for the comprehensive management of agriculture, industry and commerce. In the past, restrictions of insufficient grain harvests and other conditions made it impossible to accomplish readjustment of the rural economic structure. But now that the state has surplus grain we should not lose this opportunity to readjust the rural economic structure.

Presently there are numerous and varied factors, forms, arrangements and categories for developing new enterprises in rural areas. For example, we can utilize abundant natural resources and surplus labor to further develop industries such as foodstuffs, feed, building materials, commercial services and small-scale mining. Areas meeting certain conditions can also develop technology-intensive enterprises. But normally we should select enterprises that use local resources, consume little energy and do not have to transport products to distant places. In setting up these new rural enterprises, a large group of peasants must be drawn from farming and put to work in the enterprises to promote the large-scale development of rural commodity production and so enable the peasants to prosper. Here, the large group of peasants that have left farming will need to buy grain and other foodstuffs, thereby enlarging the consumer market. In addition, due to the peasants' increased income and buying power, they will not have to rely on state subsidies for purchases. This will strengthen the internal driving power from higher administrative levels for increasing development of the rural society's economy and grain production.

In facing reality and looking forward to the future we must adopt strategies that are correct. China's grain needs are very great and will continue to increase, so we must not lightly consider this fact. In grain production, progress is difficult and decline easy, therefore we must not adopt the strategy of "cutting production when there is excess and increasing it when there are shortages." We should seize every opportunity and adopt correct strategies for comprehensively developing the rural economy, including continuing to pay close attention to grain production.

12704  
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NATIONAL

NEW HIGH-YIELD WINTER WHEAT VARIETY INTRODUCED

Beijing NONGCUN KEXUE [RURAL SCIENCE] in Chinese No 1, Jan 85 pp 6-7

[Article by Cheng Dazhi [4453 1129 1807] and Yu Hai [6735 3189] of the Chinese Academy of Sciences, Northern Shaanxi Plateau Biology Research Institute: "The New High-Yield Winter Wheat Variety Gaoyuan 338"]

[Text] Gaoyuan 338 is a new winter wheat variety that was selectively crossbred by the Northern Shaanxi Plateau Biology Research Institute using the distant hybrid varieties Gaoyuan 506 as the female parent and 70-84-2-1-4 as the male parent. Since its successful breeding in 1976, 40 experiments using different target varieties have been going on for 4 years in Qinghai Province in the Qaidam Basin, along the Huang He, in the upper reaches of the Huangshui river basin and in wheat-growing regions in the Naoshan Mountains. Output was level or declined during six of the experiments as a result of conducting them in low-fertility fields, but output did increase in the 34 remaining experiments, with increases of 1.9 to 44.2 percent and an average increase of 22.07 percent. High-level yields of 1,800 to 2,026 jin per mu were achieved during the process of production demonstration. Yields in large fields generally can reach 1,000 jin. The Qinghai Province Crop Variety Examination and Approval Committee and the Qinghai Province Seed Company approved Gaoyuan 338 as an improved wheat variety in 1981. Gaoyuan 338 now has been extended across Qinghai Province and into high, cold wheat growing regions in Gansu, Xinjiang, the Ganzi region of Sichuan and other areas. Statistics show that it was planted on more than 100,000 mu of land in 1983. We now will introduce the characteristics and cultivation techniques of Gaoyuan 338 based on experiments and practice in production in all areas.

I. Characteristics

1. A semi-short stalk, large ears and large grains. The stem grows to 70 to 80 cm, and the segment below the ears is fairly long, accounting for one half of the stem length. The stalk is coarse and hard but toughens after maturity. The leaf blades are broad and thick and extend upward. The ears have a rectangular shape and usually range from 7 to 10 cm in length. Each ear forms 33 to 39 grains. The grains are white and semi-angular. Seed weight per 1,000 grains is especially high. It generally was 60 to 62 g in Qaidam and the maximum weight may exceed 70 g. The ventral trough of the grains is rather wide and they have a unit weight of 794 g per liter.

2. Great potential for increased yields. This variety is fertilizer and water tolerant and lodging resistant. Under high-yield cultivation conditions in Qaidam, yields may reach a stable level of 1,700 jin. During 1978, the Xiangride State Farm had 3.91 mu with yields of 2,026.1 jin per mu. The Nuomuhong State Farm had 15.06 mu with average yields of 1,918 jin per mu in 1979. Under conditions of fairly high fertilization, yields over a large area could reach 1,300 to 1,400 jin per mu. Yields could reach 700 to 1,000 jin per mu in normal fields. In the Lengliang Irrigation District along the Qilianshan Mountains in Gansu Province's Hexi Corridor, and in the high, cold wheat-growing regions along the Tianshan Mountains in Xinjiang, yields on normal fields generally are about 700 jin per mu and may reach 1,000 to 1,240 jin per mu on high-yield fields. Yields generally are about 20 percent higher than local popular varieties but can be more than 40 percent higher under high fertilization conditions.

3. Spring-type, with medium to early maturation. Gaoyuan 338 usually matures 5 to 10 days earlier than Abo. It has a total growing period of about 155 days under conditions of moderate fertilization and watering in the wheat-growing regions of the Qinghai Plateau, during which time the active temperature accumulation is 1,890° C. The growth process is characterized by a fairly short period between sprouting and tillering and between tillering and jointing, while the time between flowering and maturation is fairly long, during which time it develops and grows quickly, and the period of coming into the milk is fairly long. The separation of the immature ears begins earlier in Gaoyuan 338 compared to normal varieties. According to investigations at the Xiangride State Farm in 1979, under conditions of seven leaf blades on the main stem, cone growth begins and extends through the two-flower one-heart period. At three leaves, it enters the two-edge period and is partially into the connective period at five leaves.

4. A medium tillering ability and fairly early tillering. The ear formation rate is fairly high and ear formation is complete. In the land mass of the Qaidam Basin in Qinghai where fertilizer and water supplies are adequate and when the number of protected seedlings is 300,000 to 400,000 per mu, ear formation per stalk is 1.5 or 1.2. Tillering basically does not occur under conditions of low fertilization and there is only one ear formed per stem.

5. Fairly good colony structure and functions. The stem type is compact and the leaf layer dulling coefficient is small. The dulling coefficient of the leaf layer during the pregnant ear period is about 0.3, which permits the formation of a fairly large photosynthetic area. The suitable leaf area index in the Qaidam Basin during the pregnant ear period is about 9.5.

6. Fairly strong photosynthesis but fairly weak respiration. When it is in the milk, in vitro leaf photosynthetic intensity reaches 38.6 mg CO<sub>2</sub>/decimeter<sup>2</sup>/hour, which is 25 percent higher than Abo. Respiration intensity is only about 2.35 mg CO<sub>2</sub>/decimeter<sup>2</sup>/hour, which is 26 percent less than Abo. More of its photosynthetic product capacity is used for seed formation and the harvest index generally is 0.5.

7. Fairly good cold resistance and a preference for a cool climate. It is not tolerant to high temperatures during the period of being in the milk. Sustained temperatures about 29°C cause it to become green and dry. It is not drought-resistant and is not tolerant of poor soil. It has fairly poor disease resistance (mildly infective stripe rust and leaf rust, infective bunt, root rot, powdery mildew and red mildew).

## II. Key Points of Cultivation Techniques

1. Areas suitable for cultivation. This variety is most suitable for planting in regions at high elevations and cool climates where the average yearly temperature is 2.8° to 4.5°C. An example is the Qaidam Irrigation District, the Huang He and the upper reaches of the Huangshui river basin in Qinghai, the Lengliang Irrigation District along the Ziliangshan Mountains in the Hexi Corridor and the Shanyin region in Linxia Hui Autonomous Prefecture in Gansu Province, the high and cold region along the Tianshan Mountains in the Xinjiang Autonomous Region and other areas with similar conditions. Moreover, large-area plantings of more than 10,000 mu of Gaoyuan 338 have been made in Qinghai Province's Guide County and Jingtai County in Gansu Province, where the average yearly temperature is around 7.1°C, and high-yields of more than 1,000 jin per mu over large areas and over 1,400 jin per mu in models have been obtained. In the Xining region of Qinghai, however, which has an average yearly temperature of 5.6°C, greening and drying often occur following the stage of being in the milk. This is due to the fact that Gaoyuan 338 is planted early in the first areas (planting is done in February) and that the period of being in the milk for Gaoyuan 338 occurs from the beginning or middle of June to the middle or end of July, so Gaoyuan 338 has already entered the waxy maturity period by the time the high temperatures arrive at the end of July. This permits it to avoid the effects of high temperature and makes high yields possible. The period after being in the milk in the Xining region, however, corresponds to the period of high temperatures and much rain from the last part of July to mid-August, causing greening and drying and decreased yields.

It is evident that regions where planting can be done prior to the arrival of high temperatures are suited for planting Gaoyuan 338, but that it is not suited to cultivation in regions where there are high temperatures and much precipitation following the period of being in the milk.

2. Select fields of medium to high fertility and fairly good irrigation conditions for planting. In areas where root rot occurs, crop rotation must be carried out and there must not be a repeated growing of the same crop in the same land in order to overcome disadvantages and foster advantages.

3. Apply sufficient base fertilizer combined with topdressing. In the Chuanshui region of Qinghai, for example, the methods used for applying fertilizer to obtain high yields above 1,000 jin per mu was: under conditions of medium basic soil fertility, apply 7,000 to 10,000 jin of farm and household manure per mu, 100 to 150 jin of superphosphate and 15 to 20 jin of urea. Use 10 jin of granular phosphate fertilizer (46 percent  $P_2O_5$ ) as seed fertilizer and 30 to 50 jin of urea as topdressing.

In order to avoid poor greening and late maturation in cooler regions with a fairly short frostfree period, apply primarily nitrogen fertilizer as the base fertilizer and 15 to 20 jin of urea per mu as topdressing.

4. Rational close planting. Under normal large field conditions, rely on ear formation on the main stem to promote large-grained ears and achieve high yields. There should be about 350,000 protected seedlings per mu with a maximum of 500,000 to 550,000 stalks and about 400,000 formed ears. Each ear forms 30 to 35 grains and a seed weight of 55 to 60 grams per 1,000 is fairly reliable. When striving to obtain yields of 1,800 to 2,000 jin per mu in high-fertility fields, however, Qaidam Basin in Qinghai used 300,000 to 350,000 basic seedlings per mu with a maximum of 750,000 to 850,000 stalks and 400,000 to 500,000 formed ears. A fairly suitable situation is for each ear to form 35 to 38 grains and the seed weight to be over 60 grams per 1,000. They also took the route of achieving high yields by depending on the main stem for ear formation and striving for partial tillering (25 percent of the ears).

5. Earlier fertilizer and water management. In order to promote the formation of large ears, the first full application of fertilizer and water should be made when the immature ears are separating and entering the period of the second reidge. When growing Gaoyuan 338 in Qinghai's Qaidam Basin, the first application of water should be made at the three leaf period and the second application of water should be made about 10 days thereafter. There should be one irrigation during each of the jointing, pregnant ears, heading, milk and milk maturity stages, a total of seven applications of irrigation water for the entire growth period. In high, cold regions with fairly high precipitation and lower temperatures, however, the first and second applications of water can be postponed to the middle stages of tillering and jointing. There is no irrigation from the stage of conception to flowering because of the greater precipitation. Another application is made when it comes into the milk, for a total of three applications of irrigation water for the entire growing period.

6. Timely prevention and elimination of weeds in the fields. In fields with serious weed problems, chemical herbicides also should be used in combination with timely artificial weeding. Before sowing, 30 jin of water containing 0.3 jin of 40 percent S-(2,3,3-trichloralyl) diisopropylthiocarbamate [triallate] per mu should be applied with sprayers, followed by harrowing it into the soil at a depth of 10 cm. This can effectively prevent wild oats. From the four leaf to five leaf period (after the immature ears get the second ridge), the spraying of 30 jin of water containing 0.1 jin of diluted 2,4-D-butyl per mu can effectively eliminate broad-leaved weeds.

7. Strengthen disease and pest prevention. In fields with serious underground pests, use 1 jin of 50 percent Phoxim emulsion per mu during fall plowing or spring planting to control and eliminate insects in the soil. At 20 to 30 days before planting, the use of 0.2 to 0.3 jin of powder Bavistin per 100 jin of seeds can prevent the occurrence of bunt disease. Before flowering, spraying a 1:1,000 to 1:1,500 mixture of dimethoate aqueous

solution on the plant stalks is especially effective in preventing leaf sheath and water bugs. Moreover, irrigation during the winter and early planting as appropriate can avoid or reduce high temperature forced maturation or low temperature frost danger following the milk period.

8. Prevent lodging. Lodging of Gaoyuan 338 generally does not occur in 1,000 jin fields, but lodging caused by the excessively large colonies should be prevented in high yield fields over 1,300 jin per mu by one or two sprayings of an aqueous solution of 0.15 percent dwarfing agent per me to the base when the first and second segments begin to grow in order to reduce stem height.

9. Harvest and thresh at the proper time. The poor ability of Gaoyuan 338 to prevent grain droppage, the large grains, and the long period of late maturation require it to be harvested during the waxy maturity period. It should be rethreshed again at the late maturation period at least 10 days after harvesting. When mechanical harvesting is used, activities should be separated. It should be cut and dried first and then threshed. If harvesting is done with a combine, a failure to rethresh in late maturity not only can result in decreased grain weight and lower yields, but also can cause a decline in quality.

Furthermore, the two parents of Gaoyuan 338 are distant hybrid varieties with a very rich genetic base, so it will be difficult to stabilize their descendants and there still is slight separation. For this reason, we should pay attention to purification and rejuvenation during the cultivation process to maintain and improve its excellent qualities.

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NATIONAL

AGRICULTURAL PRODUCTION STRUCTURE TO BE READJUSTED IN 1985

Beijing ZHONGGUO NONGMIN BAO in Chinese 18 Dec 84 p 2

[Article: "Analysis of Changes in Next Year's Agricultural Production Structure"]

[Text] In the coming year, a further readjustment will take place in our nation's agricultural production structure. All prefectures will pay close attention to the selection of improved varieties and will focus on single cropping. The trend indicates that the sown area under high-quality rice will be expanded, but it is not favorable for expanding the planting of tobacco and a small quantity of cash crops will be developed rapidly.

With the increasing living standards, the demands of the people trends toward better quality food. In addition, the export of high-quality rice is very popular; thus, in readjusting the structure of food grain, many provinces and municipalities stress expanding the cultivation of high-quality rice. At present, Guangdong has screened and selected over 70 improved varieties of rice, and the good-quality, good-price policy has been adopted, encouraging the peasants to engage in farming. Jiangsu has established a production base for high-quality rice; some characteristically nonglutinous and glutinous varieties that have fragrance have covered several thousand mu of field. In Jiangxi, besides restricting the cultivation of low-grade rice, it is planned that in the near future, the cultivated areas under the first and second high-quality rice will be increased, occupying around 70 percent and over 80 percent of their respective total sown areas. The cultivated area under corn has been shrunk in north China, thus expanding the areas for the cultivation of first rice and millet.

Under a situation which ensures stable total food grain production, cultivated areas under a small quantity of cash crops, such as flowers, Chinese medical herbs, etc., will be expanded. In some prefectures, some products are difficult to sell. All prefectures should base output on market demand and make suitable readjustment. The tobacco market has been saturated, therefore, it is not favorable to expand the planting of tobacco.

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NATIONAL

CORRECT RESTRUCTURING OF AGRICULTURAL PRODUCTION URGED

Beijing NONGCUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 1, 5 Jan 85 pp 12-13

[Commentary by Fu Min [1381 3046]: "Correctly Treat the Readjustment of the Structure of Agricultural Production"]

[Text] The structure of our agricultural production is in many places not very scientific or reasonable; we must gradually change it along with the development of production. The overall principle is still to seek truth from facts and adapt to local conditions. First of all, areas suitable for planting food crops must plant food crops. Apart from this, areas suitable for forestation must engage in forestation, areas suitable for animal husbandry must engage animal husbandry and areas suitable for fishery must engage in fishery. In the past emphasis was put on "taking food crops as the key link," thus in hilly areas reclamation of land was undertaken everywhere to do farming, resulting in the shift and loss of water and soil in an increasingly grave manner. Today it is prescribed that hilly areas with slopes of an angle more than 25 degrees must be withdrawn from farming; if they do not have food crops to submit to the state, the state will allocate them. Otherwise, water and soil can never be properly preserved. Those places unsuitable for farming must make up their minds to gradually withdraw them from farming and plant grass and trees instead; the burden of self-sufficiency in foodgrains must be removed from them.

Peasants in certain economically developed areas are unwilling to plant too many food crops because avenues of production and management are becoming more and more available there and the income gap between different enterprises is quite great. These peasants feel that it does not pay to plant food crops; they demand to plant fewer food crops and more things of higher economic value. Peasants in the outskirts of certain big cities are unwilling to plant vegetables, believing that industry will be more profitable. Moreover, foodgrain production must readjust its structure and increase varieties to improve the quality of products according to market demand. It is necessary to energetically develop the animal husbandry and fishery industries, as well as readjusting policy to a certain degree.

Readjusting the structure of our agricultural production must maintain the fine momentum of our food production and assure increases in foodgrains. If

once we get rich we overlook this question and food production decreases, then we shall suffer hardship in the future. Places unsuitable for planting food crops should not plant them, but it is necessary to improve per-unit food productivity and the total food output must not decrease. As we discuss the question of grain conversion today, we are thinking of converting simply consumption of foodgrains into consuming more meat, milk, fowl, and eggs, and the basis of such conversion is the availability of grain itself. Precisely because there is an increase in our grain production, so we can promote such conversion. If grain production becomes stabilized or reduced, then the rate of conversion must slow down. Therefore, we should not be afraid of having too much grain, and however we conduct the reform, we must not disrupt food production. This is a major policy and a strategic question. Grain is the foundation, and this foundation must never be shaken. In policy we must be cautious and must never dampen the peasants' enthusiasm for producing grain. It would be disastrous should our food situation should produce a great loophole. Just as many comrades have concluded, in the countryside, "There can be no stability without agriculture, no wealth without industry, and no vitality without commerce--here "no stability without agriculture" means primarily grain. For the average Chinese, 800 jin of foodgrains per year is a low level; he simply cannot do without 1,000 jin of foodgrains as his foundation if he wishes to drink beer and Maotai or eat more meat! Without growth in agricultural production, our rural industries cannot develop, nor can "commerce" become vitalized. Today it is demonstrated on the television how to cook this dish and that dish and how the food industries are thinking of doing this and doing that; without the raw materials nothing is possible. Agriculture is the foundation; this cannot be shaken. So long as our policy is mastered well, our food will not decrease. Our chemical fertilizers have been increasing every year, our farming conditions have become better and better, and our science and technology have been providing greater and greater support to agriculture. As long as we pay attention to policy, food production will not be a major problem.

Today, because of yearly increases in production, food has become relatively more abundant, so conditions are right for studying the structural reform of rural production and the issue of grain conversion. This is beneficial to the overall development of China's rural economy and conducive to a change in the structure of the people's food. Today we have an average of 25 jin of meat for each person; by the end of this century, when we reach 50 jin, that will still be inadequate, and we will still need to increase our milk, eggs, and fish consumption. This conversion constitutes a process. Converting foodgrains into fowl and eggs may be faster; we must get a handle on this first. Five jin of foodgrains can be converted into 1 jin of beef or pork, 2-jin plus of foodgrains can be converted into 1 jin of chicken meat; so in the developed capitalist countries fowl and eggs are all very cheap. Practice has already proved that when a specialized household raises one or two thousand chickens, it can earn several thousand yuan a year; this presents considerable potential for development. At the same time there must be development in domestic animal meats. The development of beef and lamb, when undertaken, also must not proceed too slowly. Freshwater and marine fish breeding must also be energetically developed.

Following the conversion to meat, milk, fowls and eggs is yet another conversion, which involves sales. With our present low wages, how can we afford to eat more chickens, eggs, meats, and milk? It is impossible to expect high wages and high consumption right now; we must work on medium wages as soon as possible. Urban reform is connected to rural development. The selling of fruits, meats, eggs and fowls in the cities should be further liberalized, because these are the things the peasants have been producing more and more; apart from the rural market, they can only sell to the people in the cities; if these cannot be sold, then they cannot get rich and they will not produce any more. We must use consumption to promote production. There is also the question of the supply of industrial products and rural means of production, which we must study. This involves the issue of a new urban-rural and industrial-agricultural relationship, which we must understand anew.

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NATIONAL

## PROCUREMENT SYSTEM LINKED TO COMMODITY PRODUCTION

Beijing NONGMIN RIBAO in Chinese 22 Jan 85 p 3

[Article by Hu Xianshi [5170 6343 0013]: 'Relationship Between Procurement System Reform and Commodity Production Explored']

[Text] Both the CPC Central Committee and the State Council have decided that from this year on, China's agricultural product unified and assigned procurement system should be greatly reformed. As a result, except for a few products, farmers will no longer have to observe the agricultural product unified and assigned procurement system. Instead, depending on the different local situations, the agricultural products will be sold by contract with either the country or other marketing agencies. The remaining products can then be sold freely on the open market. These changes that have been made under the guidance of state planning will regulate and expand the market, subsequently leading to change in our agricultural production which would now be subject to market demand. The determination of this general policy represents a tremendous breakthrough in our rural economic work. It also can be seen as the second great reform that succeeds the first reform, the introduction of the output-related responsibility system in the rural areas. We can also predict with certainty that reform of the unified and assigned system for procurement of agricultural products will result in great improvement in agricultural commodity development and will also facilitate the goal of "doubling" agricultural production.

### I

The policy of unified and assigned agricultural product procurement was first legislated in our country in regard to a number of essential agricultural products. Unified procurement referred to a policy of uniform purchase by the state of such important agricultural products as grains, cotton and edible oil. Assigned procurement was the policy whereby the state assigned specific procurement tasks for key sideline products to rural communes and production teams. The implementation of this system during the initial phase after liberation guaranteed supplies, thus providing active support for the tasks of reconstruction. At that time, both our political and societal foundations had not yet been stabilized. In that situation, both internal weaknesses and external pressures had caused such unfortunate circumstances as shortages in material production

in China. In order to transcend normal historical processes, we decided to implement rather daring and liberating policies in our country, even at the risk of disobeying the will of our people as well as stretching our national production capacities. We should note that the legislation of such policies would not have been undertaken without hesitation even by the more advanced socialistic countries in their similar goal of resolving difficulties in their agricultural production. Nevertheless, we adopted the unified and assigned procurement system for our agricultural sideline products in the face of specific historical circumstances. Now, however, we should consider the system from its point of origin and should not regard it as a permanent and unchangeable economic model for China. Similar to the development of other systems, our rural economy must progress in changing the emphasis from quantity to quality, as well as the development in a free economic environment toward commodity production. When seen in such general economic progress, the unified and assigned procurement system contrasts markedly in its defects, and now it is already considered as the chief obstacle in the path of both agricultural commodity production development and the increase of overall economic growth. There is, therefore, the definite necessity for reform of the system.

As a result, since the termination of the policy of the "big communal pot" in the rural collective economy, both the Central Committee and the State Council have undertaken to reform the management of the rural economy while paying careful attention to local situations. The gradual changes that have been made in the agricultural product unified procurement and contracted marketing system represent altogether an active measure of stimulation as well as a mature combative policy.

## II

A priority in the development of commodity production is a condition in which the farmers have sufficient say themselves in both their production and management. The unified and assigned procurement system, however, arose in a highly organized environment where there was central planning. The production of the farmers was thus both governed by national planning and controlled by the views of senior officials. All agricultural production was purchased by the country. Any individual farmer deviating from this policy would be considered guilty of "willfully subverting national planning." The farmers were, therefore, completely controlled by regulations in their work of production and management. They did not have any independence or say in their own affairs and were thus hardly in a position to consider active development of agricultural commodity production for themselves. Since the reform of the procurement system, however, the state has ceased to dictate to farmers their share of responsibility in accordance with unified and assigned procurement. As a result, production in these rural areas has changed from the production according to central planning to "production in accordance with market demand." Neither production nor management is under any restrictions. On the one hand, farmers are now guaranteed to have their own say and on the other hand, the state exercises regulation through economic means to stimulate the rural economy. As a result, following the growth in the farmer's independence, our rural economy will

soon progress from the semi-self-sufficiency large-scale commodity production.

In order to develop agricultural commodity production, the structure of the rural economy must first be reformed. In this regard, the greatest defect of the procurement system also lies in the strictures the system has imposed in the structural reform of agricultural production and in the internal changes within agricultural production as a whole. For example, there are now accumulations of surplus production in some of the rural areas because of "selling difficulties"; while in other areas, there are shortages in the supplies of these products because of "purchasing difficulties." These situations have the following implications: both the expenditure of labor and agricultural production may be considered wasted; in addition, such necessities as grains and cotton in geographically suitable regions cannot be sold, while their production in unsuitable regions because of the procurement system defective has led to both financial losses and adverse conditions in conservation. Therefore, in general, although there has been an increase in the quantity of our agricultural production, there has not been a corresponding rise in overall quality or varieties grown, while the problem of agricultural production accumulating in the warehouses remains unresolved. There are numerous causes for this state of affairs, such as inadequate capital funding, technical know-how, natural resources and transportation; but the single primary cause is the unified and assigned procurement system and its inherent defects.

After the reform of the procurement system, there has been an expansion in both the market and competitiveness. As a result, in order to continue to develop in a competitive environment, farmers must reorientate their production to the market and the needs of society. Under these circumstances, the structure of agricultural production must be changed to conform to a commodity economy basis and consideration of market demand. As a result, science and technology will be more widely adopted in order to increase production and surplus energy; capital and technology will also be spent with for similar ends. Diversification in our agricultural development will lead to structural changes in our society's production. At that time, our rural economy will be energized even more.

The development of commodity production will lead to the greater free circulation of agricultural commodity products as well as the formation of an economic model of circulation through a number of direct channels. In contrast, the system of unified and assigned procurement restricted the availability of goods to only one "monopolistic" source, a situation that hardly encouraged the free circulation of goods. This procurement system had also led to such attitudes regarding commodity production as "terminating production when there is a surplus and crying for help when there are shortages." After the reform of the procurement system, however, agricultural production is no longer limited by assigned allocations and, as a result, in their own management, farmers can now sign purchase contracts directly with processing and consumer units. In addition, farmers can also enter into purchase agreements with the relevant units through the representation of cooperative organizations or producers' associations.

Therefore the former practice under the old procurement system of "allocation of responsibilities by the various administrative levels and determination of production by administrative planning" has now ceased. The economic model wherein goods circulate freely through a number of direct channels with a minimum of administrative regulations has been implemented. As a result, the free circulation of goods has also advanced the development of agricultural commodity production.

### III

Now both the time and situation are ripe for reform in the agricultural production procurement system. As a result of the 5-year reform in our rural economy, there has been a tremendous boost in morale, especially for reform, among both our masses and cadres. There have been increases in the overall production of grain, cotton and oil in addition, there has also been considerable improvement regarding shortages in some of our agricultural products. The general income of farmers continues to rise and the development of agricultural commodity production is also progressing. These are the material results of the reform of the agricultural production procurement system. In general, the reform of the overall economic system, whose former focus was the cities, will now promote corresponding reforms in the rural economy, creating a new situation of mutual cooperation and mutual benefit between rural areas and urban centers. Now most of the rural areas are on the brink of rapid and beneficial development in their commodity production, and the reform of the procurement system seems as natural as the "flow of water in ditches."

We should, however, also be aware of this reality: the "one-channel" procurement system has been in practice in our rural areas for the past 30 years, and the system has also accordingly molded both the mental and practical attitudes of the people. The termination of this "one-channel system" is, therefore, bound to give rise to strong reactions. For example, some people may feel that the sudden changes may cause great social instability in society; others may fear the sudden rise of prices with a corresponding drop in the people's living standards; still others may fear adverse results in the absence of procurement and marketing restrictions--all these feelings and fears are, of course, completely understandable. Thus we should proceed along the path of reform without any sense of uncertainty but instead with full confidence in our victory. In addition, in our practical working procedures, we should proceed with caution, just as one would step on rocks in crossing a stream. As a result, we will look carefully before taking each step and will adopt the attitude of winning successions of small battles instead of rocking the boat in making our changes. But, of course, in our country's situation, where the territories are expansive and the local regions myriad in their local situations, the practice of unprecedented rural reform will not meet with instant smooth successes. Nevertheless, we should not let either minor or major setbacks influence us in our determination to reform. As long as we adopt the following attitudes: diligent study, forthrightness in carrying out practice,

courage in trying, and meticulousness in our work, then we will certainly succeed in winning a great victory in our second phase of rural reform--a phase that is necessary preparation for a climax in the development of our agricultural commodity production.

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NATIONAL

# PROBLEMS CONCERNING AGRICULTURAL PROCUREMENT OUTLINED

Beijing ZHONGGUO NONGMIN BAO in Chinese 23 Dec 84 p 2

[Article: "Responsible Personnel of the Cotton and Hemp Bureau in the Department of Commerce Answer This Newspaper Reporter's Questions"]

[Text] Question: Is there a guaranteed procurement for this year's cotton?

Answer: We once again wish to announce to the many cotton farmers that Department of Commerce Deputy Minister Pan Yao's [3382 6674] speech in October of this year at the National Cotton Work Conference is to be taken seriously, and in accordance with the policies currently in effect, the state will procure all of this year's cotton. From 1 September of this year up to the end of October of next year, the 1984 cotton production fiscal year, there can be sales of the state any time during this period. We hope to dispel the anxiety of the cotton farmers and do not want fighting over sales, but want to have planned cotton sales to the state in accordance with the rational selling plan of local procurement departments.

Question: Many cotton farmers have reported that the cotton sales prices are lower this year reducing earnings, and some people believe this is because procurement departments have pushed down the grade and price yet others believe that the state has improved the standards of cotton procurement. Please discuss your views.

Answer: The sales price of most of the local cotton is lower this year and this is a fact. There are many reasons, but two stand out: first, the adjustment in the cotton procurement policy carried out by the state caused cotton prices in some cotton regions to fall below those of last year; second is the difference in this year's cotton quality, the grade being lower than that of last year.

Question: What adjustments did the state make this year in its cotton procurement policy?

Answer: First of all, the state decided this year to increase the price of cotton when the new cotton goes on the market by changing from the base figure method to the ratio method, as in the southern cotton region

at four to six (40 percent price increase, 60 percent merchandise price); and in the northern cotton region, the reverse two to eight (80 percent increase, 20 percent merchandise price). These adjustments will make the areas without base figures and with low base figures to the ratio of price increases, thus affecting the earnings of the cotton farmers. For example in Hebei Province, according to the price estimate for third grade fiber 27 millimeters long, with every one hundred jin the price increase will reduce earnings 3.94 yuan, and Cangzhou Hengshui and Langfang, originally without base figures or with very low base numbers will decrease more than 6 yuan. Second, by abolishing the 5 percent external price subsidy in the northern cotton area, which was used by the state to encourage the northern cotton region to develop cotton production, and by adopting temporary measures, in recent years northern cotton has taken a great leap in production and has already reached the expected goal. The State Council decided to abolish the 5 percent external price subsidy when the new cotton goes on the market this year, and for every 100 jin of cotton, the selling price (including the price increase) for grade three 27 millimeter fiber ginned cotton will be reduced 9.49 yuan from last year. Third, for every 100 jin of ginned cotton the northern cotton region sells to the state, the award grain will change from 2 jin to 1.5 jin, and for every 100 jin of ginned cotton, the cotton farmers' earnings will decrease 3.5 yuan with the grain price difference; by abolishing the price increase of ungraded cotton, the award grain and award fertilizer, the procurement price everywhere stipulates that for every 100 jin of ungraded cotton total earnings will decrease by more than 40 yuan.

12883  
CSO: 4007/179

NATIONAL

# IMPROVEMENTS UNDER THE CONTRACT PROCUREMENT SYSTEM DISCUSSED

Beijing NONGMIN RIBAO in Chinese 30 Jan 85 p 3

[Article by Chen Qizhen [7115 0366 7109] of the Ministry of Commerce's Grain Purchasing and Marketing Bureau: "Following the Abolishment of Unified Grain Procurement"]

[Text] The CPC Central Committee and the State Council have decided that starting this year the unified procurement of grain will be abolished and replaced with contract purchasing. Everything from the form of grain procurement to the channels of circulation should help to open wide the circulation of grain. Abolishing unified procurement and converting to contract purchase is not a policy limiting grain harvests adopted under the conditions of excess grain, but a policy of relaxing control and invigorating the economy.

In carrying out unified procurement, the state issued purchase quotas to the peasants through administrative organizations. In normal harvest years the peasants had to fulfill their quotas; in years of summertime calamity they had to get approval to reduce their quota. Although they received money for their assigned and surplus grain, and had commodity exchange with the state, the peasants' selling of grain to the state was carried out under conditions of persuasion and mobilization. The exchange depended on the prerequisite needs of the state and was obligatory. Peasants that had surplus grain but did not fill their grain quotas to the state suffered interference from administrative organizations at all levels. Especially when higher prices for grain exceeded the quotas, the fetters on the peasants were tightened even more. After the abolition of unified grain purchase and the conversion to contract purchase the peasants' legal status will be equal to the grain enterprises in signing purchasing and marketing contracts. They will be free to take grain to the market without any outside interference which will increase their vitality.

After a fairly long period under the unified purchase system, every variety of grain came under the scope of unified procurement. After implementation of the household output-related contract responsibility system, purchase quotas for some miscellaneous food grains and pulses were even assigned to households producing just a few jin or a few liang! Yet they still had to be fulfilled. During the last couple of years, although some areas have reduced the scope of unified purchase, there are still six to seven or even more varieties that are assigned quotas. After abolition of the unified contract system, except

for contract purchase quotas for wheat, paddy rice, corn, and soybeans in major producing areas, all other varieties can be freely marketed. This serves to increased varieties. Contract purchase of grain, paddy rice, corn, and soybeans in major producing areas accounted for nearly 80 percent of all grain that was purchased and stored in the past 2 years. The other 20 percent was purchased on the open market. This caused an increase in grain volume.

In the unified purchase system, except for public grain, the prices for purchased and stored grain were set by the state and did not change for several years. In discussion of the price, it could also be set at the "second state purchase price," concerning which the sellers and buyers had no say. The price was extremely inflexible. After abolishing the unified purchasing system, except for contract purchase prices determined by the state, all other prices for freely marketed grain were set by the buying and selling parties. The control of prices was thus relaxed.

After a fairly long period under unified purchase, grain became solely managed by the state. Although in January of 1983 the CPC Central Committee and the State Council decided to allow various channels of management for satisfying the unified grain procurement quotas, because the prices were not relaxed, these channels had no stimulus from beginning to end. In actuality the majority of areas were still using the grain department as their sole means of commodity circulation. After abolition of the unified purchase system, grain was not affected by restrictions in division of management, and as a result, circulation through other channels developed quickly. Agricultural product management, processing, and consumer units can now sign purchasing contracts directly with the peasants; the peasants can go through cooperatives or set up producer associations to initiate consultation and signing of contracts for sales with related units. This increased the channels of management, which naturally stimulated the grain management.

Some peasants are worried that with contract purchase they will not be able to sell their grain, that grain selling difficulties will be intensified, the grain price will drop, and their income will be reduced. These worries are unnecessary. After abolition of the unified purchase system, the grain departments will fulfill their contracts and purchase wheat, rice, corn, and soybeans of major producing areas according to the price set by the state. During bumper harvest years with increased yield, peasants that have surplus grain after fulfilling the amount they have contracted for, can freely sell the surplus. The price of this surplus grain will be set by the market; if the price is lower than the original unified purchase price the state will still buy the grain at this price. Grain departments will also be active in grain sold on the open market; they will buy at prices set by the market, and will have a hand in regulating the market. The price of grain on the open market may be higher or lower than the original unified purchase price, but when the price is lower the state will still buy the grain at the unified purchase price.

With the state acting as the leader in market prices through the use of contract purchase it will prevent large fluctuations in market grain prices. By centering on price fluctuations, regular income will be guaranteed for the

peasants and the market will be stabilized. Due to the relaxation of prices, consumer units and individuals outside the grain department can have an active hand in grain management and allow all of society to promote grain conversion and increase its prices, while on the other hand it can promote the development of grain production.

China's per capita grain production is currently at about the world level, in comparison to developed countries, though it still has a long way to go. From now on we should press forward and not slacken the production of grain while actively developing various channels of management. After abolition of unified purchase, grain departments should do a good job in implementing the contract purchase system, and other departments, units, and individuals need to take an active part in regulating the grain market. This will invigorate work in grain and maintain the favorable trend of increased output year after year.

12704

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NATIONAL

## PROBLEMS, BENEFITS OF CONTRACT SYSTEM DISCUSSED

Beijing NONGMIN RIBAO in Chinese. 31 Jan 85 p 2

[Article by Li Xiaokuan [7812 6454 1401] of the Industrial and Commercial Administration's Contract Department: "Discussion on the Contract System"]

[Text] I. Why should the contract system be put into effect in rural areas?

Presently, the economic contract system is being extensively utilized in various economic activities in the rural areas. This not only goes another step forward in promoting the transformation of rural production into a commodity economy, but is also beneficial to the readjustment of various economic trade relations in rural areas and to protecting the rural economic system. Along with the growing rural economic management system reform, carrying out the contract system further and using the legal weapon of economic contracts to protect the legal rights of rural area producers have become extremely urgent tasks.

1. Several years of rural economic reform and making the output-related contract responsibility system the special feature of the cooperative system have impelled numerous peasant, specialized, and key households to become relatively independent commodity producers. They have even more decision-making power in their production, and in their proper association with other economic organizations and individuals they are in an appropriate legal position. The legal rights and interests of the households are under the conditions and protection of state laws and policies. Implementation of the economic contract system is appropriate for meeting this need, and so the readjustment of the economic trade activity among agricultural producers, other economic organizations, and individuals can be normally carried out.

2. Recently, the state changed the unified and assigned procurement policies for agriculture sideline production that did not suit the development of production. Under the planning and guidance of the state, the plan for adjusting the expanding market was implemented, and various forms of economic contracts were used to coordinate the relations between agriculture and commerce and those between production and circulation. The purpose of this is to impel the agriculture production to meet the market needs and promote the rationalization of the rural production structure. It can also be said that the state does not need to issue unified and assigned procurement for agriculture sideline products to the peasants, but should further utilize the market adjustment method. In

this type of situation, in order for producers in rural areas to prevent their products from not meeting the market needs and thus causing overstock and waste, they should prior to production, based on the changing trends of the market, sign contracts with other economic organizations or individuals. This will not only strengthen the planning of production but also ensure the selling of their products. If a situation occurs where a party violates a contract, then the legal responsibility of the violating party can be investigated and determined based on the contract.

## II. What problems currently exist in carrying out the economic contract system?

The National Peoples Congress in December of 1981 adopted and published the "People's Republic of China Economic Contract Law." This law offered whole series of stipulations governing the signing, fulfilling, altering, and termination of economic contracts along with those for investigating and determining responsibility of contract violators. This law must be followed by the broad peasant masses and the specialized and key households in signing and carrying out economic contracts; it is also a powerful weapon for determining responsibility for violators and protecting the legal rights and interests of the concerned parties. However, due to incomplete study and dissemination of the economic contract law there are still many peasants who do not understand it and do not know how to use the law as a weapon to protect their legal rights and interests. Therefore, in carrying out the economic contract system and thoroughly implementing its enforcing the "Economic Contract Law" there are still some questions worth paying attention to.

1. Taking advantage of the economic contract to engage in cheating. Currently, there are a small number of criminal elements and illicit organizations that take advantage of the peasant masses' eagerness to purchase and sell products. There are also some enterprises that have no management of production and are short of funds that sign many contracts in order to gain money by cheating. Quite a number of rural and small town enterprises, specialized, and key households were taken in by these deceptions and suffered serious financial losses, even to the point of going bankrupt.

2. There are presently many cases of contract disputes and illegal activity that clearly show a widespread problem of specialized and key households and rural and small town enterprises not understanding the law and not comprehending the basic knowledge of contracts. In concluding and signing a contract, these phenomena are very prominent: Not implementing the stipulations of the Economic Contract Law, not being serious and conscientious, not having the provisions of the contract spelled out, the responsibilities not being explicitly stated, the contract not clear, and the language not being accurate, leading to some contracts being impossible to fulfill. Some contracts develop disputes over responsibilities not being defined clearly while some result in unnecessary losses because they were drawn up incorrectly. In some contracts the rights and obligations of the different parties are obviously unfair, which goes directly against the basic principle of the Economic Contract Law.

3. There are some specialized and key households along with rural and small town enterprises that do not scrupulously keep their word and refashion the contract as they please, which is inappropriate for drawing up and fulfilling contracts. This not only leads to disputes but also causes economic losses for the parties concerned. Some leading cadres also interfere with the drawing up and fulfillment of an economic contract, and unreasonably hinder the carrying out of the contract, this is extremely harmful to the rural economic order.

The existence of these problems requires that leaders at all levels and concerned departments strengthen the dissemination and guidance in study of the economic contract laws and regulations so the vast numbers of peasants can study and understand the Economic Contract Law and conduct their contract business based on it. In addition, management of rural economic contracts should be strengthened along with development of work in advisory services and supervisory examination to crack down on illegal activity that utilizes economic contracts. A good job should be done of handling disputes, and the rural economic contract system should be continually strengthened and perfected.

III. What problems should be kept in mind when drawing up and carrying out economic contracts?

In order to guarantee the quality of contracts and increase the proportion of contracts that are fulfilled, the vast numbers of rural peasants, specialized and key households, and the involved personnel of rural and small town enterprises must get a good grasp of general knowledge and practice in drawing up and fulfilling economic contracts. Below we will specifically address several problems.

1. When drawing up a contract, it is necessary to abide by state law and conform to state policy so that the legality of the contract will be guaranteed. Before a contract is drawn up, concerned parties of both sides should have ample consultation, and implement the principles of equal benefit and compensation of equal value so that one party cannot force its will upon the other.

2. When drawing up a contract in accordance with the regulations of the Economic Contract Law, the following important provisions should be included: quality and quantity, cost or remuneration, deadlines for fulfillment of the contract, location and style, and responsibilities for contract violations. Furthermore, the language of the contract should be accurate, logical, and clearly written. The procedures for drawing up a contract should be complete, with the representatives ready to sign and unit seals ready; it must not be conducted carelessly.

3. Before signing a contract each party should have an overall understanding of the other's situation. Most important is that they know whether or not the other party has legal qualifications and whether its situation is sufficient for carrying out the production, it has the necessary funds, its representatives or agents are legitimate, and so on. By getting acquainted with the situation through investigation, they can prevent criminal elements from availing themselves of loopholes, prevent being taken in by these elements and cheated, and also avoid disputes and ensure that contract commitments are honored.



4. Parties should scrupulously stand by their word so that contracts are comprehensively and appropriately fulfilled. After signing a contract the concerned parties of both sides should adopt appropriate measures, in accordance with the fixed time and location in the stipulations of the contract, to realize the points and requirements agreed upon in the contract for quality and quantity. If a party does not fulfill or properly fulfill its commitment, then naturally this can cause economic losses for the other party. Therefore, the one who violated the contract must assume responsibility and pay the other party contract violation fines and compensation for losses.

In addition to this, when signing a contract the changing market supply and demand should be understood and economic results should be objectively considered.

12704

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21 May 1985

NATIONAL

## ADJUSTMENTS TO PROCUREMENT OF CATEGORY I, II GOODS DISCUSSED

Beijing ZHONGGUO NONGMIN BAO in Chinese 13 Dec 84 p 2

[Article: "New Adjustments to Procurement and Marketing Policies for Agricultural and Sideline Products"]

[Text] In July of this year, the state made new adjustments in the agricultural and sideline product procurement and marketing policy. However, in some places, there are departments which have not begun the genuine implementation of these new policy regulations. For example, regarding products which are no longer under assigned procurement, the assigned procurement task continues to be transmitted, and as for permitting the free buying and selling of products, centrally fixed prices are still being carried out. Also, there are some comrades of the Rural Work Department who do not understand the new regulations and are unable to arrive at the needed applications. The following explanation answers two questions at this point with which many cadres and the masses in rural plants are universally concerned.

Question: What changes have been made in the commercial system management of the centralized and assigned procurement of products?

Answer: Management of category I and II agricultural and sideline products by the Ministry of Commerce has been reduced from 21 to 12 types.

Centralized procurement of products remains for three groups: grains (rice, wheat and corn only), fats and edible oils (peanuts, vegetable seeds and cotton seeds only) and cotton (graded cotton and short cotton only).

Assigned procurement products have been reduced from 18 to 9 types, namely; (sideline sales tea only), cowhide (state butcher section only), sheep wool, long bamboo, punt bamboo and vegetables (for large to middle-size cities and for major mining regions only).

The nine products of goat leather, sheepskin, cashmere, beef, mutton, fresh eggs, apples, tangerines, tung oil, etc. will be opened up with free trade.

Assigned procurement of Chinese medicinal products has been reduced from 30 to 24 types and is divided into 2 types of management. The first, belonging to uncultivated, rare products such as musk, licorice root, bark

of eucommia and four kinds of bark of official magnolia, is procured only by the Medicine Bureau in order to protect natural resources. The second, belonging to the concentrated production areas, regulate the large surface area products such as Chinese goldthread, Chinese angelica, chuanxiong [1557 5343], root of rehmannia, large-headed atractylodes, white peony, tuckahoe, tuber of dwarf, lilyturf, milk vetch, bulb of fritillary, Lonicera Japonica, chrysanthemum, ox-knee, [Yuanhu 0337 5170], root of balloonflower, weeping forsythia, taro root, root of pseudo-ginger (including wild mountain ginger) and 20 kinds of cow-bezoar, etc., and after the implementation of planned procurement, there will be more channels of operation. All other medicinal materials will be opened up in a free market.

Forestry products of few material resources and articles made of bamboo and wood are opening up completely with more channels of operation. At the same time, there will be an expansion of part of the lumber market while farmers will be organized and surpluses and deficiencies will be regulated.

Fresh-water fisheries have already been completely opened up by implementing more channels of operation.

The planned agricultural and sideline product supervision list has been fixed by the State Council, and provinces, autonomous regions and municipalities under the central government, in compliance with necessary regulations, must announce the State Council's ratifications. The national stipulations for the centralized and assigned procurement tasks must put into full effect the secondary production units, which should remain the same for a set number of years, and procurement contracts are to be drawn up by procurement departments concerned with the same production units.

Question: What improvements have been made by the state in the methods of product price management?

Answer: The state, with regard to the price control list of agricultural and sideline products, will make procurement product control lists consistent. With regard to the centralized and assigned procurement of agricultural and sideline products, and everything else included in the plan, the state will implement planned procurement prices. After completing the task of the centralized and assigned procurement of products and unplanned products, negotiated procurements and expenditures will be carried out, with prices in accordance with the market conditions of supply and demand and following the rise and fall of the market. With regard to state planned products, there must be joint discussions by departments and equitable arrangements of regional and quality price differences, with more flexible management. By implementing price subsidies of commodities regarding grains, edible oil, pork, etc., we must progressively arrange prices and reduce financial subsidies. With regard to the current implementation of beef and lamb rations for the Moslems of the large and middle-size cities, rations within limits will still be according to the merchandise price of supplies with deficits subsidized by state finances.

State merchandise prices will be implemented for industrial products of daily use which are procured by the State Wholesale Department in all areas; regarding those individually procured, enterprises will set prices on their own. Regarding a greater number of choices of commodities, a fixed range of varieties and designs of products will be implemented with flexibly controlled prices. For fertilizers, pesticides, diesels etc. and important agriculture production materials and construction materials belonging to planned distribution, state brand prices will be implemented. Enterprises may set the sale price and increase equitable costs and small profits on the basis of wholesale prices for procured products not included in the plan.

Regarding unpopular, leftover and overstocked commodities, the basic level of supply and marketing cooperatives, in accordance with related regulations can individually handle price reductions. Supply and marketing cooperatives, as the purchasing and marketing agents of products, can be entrusted to discuss honestly and set commissions together. They can, on behalf of the peasants, in accordance with the concrete present costs for commodities, receive a reasonable increase in commissions.

#### Addenda

The list of the first and second groups of agricultural and subsidiary products which are currently in effect:

Category I products (centrally procured products) are grains (rice, wheat and corn only), cotton (graded and short cotton only), fats and edible oils (peanuts, vegetable seeds and cotton seeds only) and lumber.

Category II products (those subject to assigned procurement) are yellow and red hemp, root of ramie, tea (sideline sales only), cowhide (state butcher section only), sheepwool, big bamboo, punt bamboo, vegetables (for large and middle-size cities and major mining regions only), tobacco, special sun-dried tobacco, live hogs, sugarcane, beets, silkworms, silkworm cocoons, musk, licorice root, bark of eucommia, bark of official magnolia, Chinese goldthread, Chinese angelica, chuanxiong, root of rehmannia, large-headed atractylodes, white peony, tuckahoe, tuber of dwarf lilyturf, day lily, bulb of fritillary, Lonicera Japonica, chrysanthemum, ox-knee, pepper, root of balloonflower, weeping forsythia, taro root, root of pseudo-ginseng, ginseng, (including wild mountain ginseng) and cow-bezoar.

12883

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NATIONAL

## ON PRICES OF FARM PRODUCTS

Beijing NONGYE JINGJI WENTI [PROBLEMS OF AGRICULTURAL ECONOMICS] in  
Chinese No 2, 23 Feb 84 pp 31-32

[Article by Wang Zhenzhi [3769 2182 0037], Wang Yongzhi [3769 3057 3112]  
and Wei Yunliang [7279 7301 3809] of the Chinese Academy of Social Sciences  
Finance Institute: "Some Thoughts on Agricultural Product Prices"]

[Text] I. Research Must Be Done on New Problems Arising in Pricing Work  
Caused by the Great Development of Commodity Production in Rural Areas

1. A fairly prominent problem is how to consciously use the law of value and pricing levers to promote or restrict the production and circulation of certain agricultural and sideline products and how thereby to include the major aspects of farm and sideline production in planning and achieve equilibrium between supply and demand. Apart from the need to base the prices for all farm products on their value and for the price parities of farm products to be centered on the price of grain, the current principle for readjusting price parities also must consider ways to enable the peasants to obtain roughly similar incomes from planting all types of farm products. The question of whether or not price parities are arranged rationally is strongly related to the peasants' decision to plant or not to plant a crop and to the planned and proportional development of agricultural production.

2. The question of grain prices. The problem of the peasants having difficulty in selling grain continues to appear, and grain is not circulating freely. Is it possible that this phenomenon indicates that grain supplies exceed demand and that production should be controlled by lowering grain prices? We feel that there are many reasons for the difficulties in selling grain and impeded grain circulation. Current storage and shipping capacities, for example, cannot keep pace with requirements, but the main problem is the higher prices paid for over-quota purchases. Higher prices for over-quota purchases of grain have destabilized grain purchase price levels and the problem has grown automatically as grain output has increased. This has led to increasingly severe problems of frequent changes in grain purchase and selling prices, and has caused greater problems in selling, transferring and converting grain. The state's financial burden also is becoming increasingly heavy.

We must first of all stabilize the level of grain purchase prices if we wish to alleviate grain prices and put them in order. Then, on the basis of stabilized grain prices, we can solve the problem of frequent changes in grain purchase prices.

Higher prices for over-quota purchases must be changed to fixed proportional prices if we wish to stabilize the level of grain purchase prices. Some provinces now are doing this (Heilongjiang Province, for example, sets prices at a 3:7 ratio). The question of whether or not the price parities within grains and regional price differentials are rational can be solved suitably by using the opportunity to change higher purchase price methods.

Grain circulation between regions will be enlivened after grain purchase prices are changed to fixed proportion higher prices, and the problem of transfer prices being lower than actual prices will disappear. How can purchase prices be arranged for grain used for feed and for industrial uses, and for the fixed grain rations of city residents? This is a fairly troublesome problem. Price subsidies for farm products, and especially grain price subsidies, are found not only in socialist societies but in capitalist societies as well. Total elimination of grain price subsidies certainly would not be rational given China's national conditions. For this reason, we feel that there can be identical purchase prices for grain used for feed and in industry, with the state subsidizing the costs. There should be corresponding increases in the selling prices for livestock and grain products after the grain is converted. The decline in living standards of state sector employees following the price increase can be borne by subsidies for consumers. There temporarily should be no change in the selling price for grain ration of urban residents. In this way, grain prices basically can be put into order.

3. How can the state guide and influence prices for agricultural and sideline products after they are freed up to a further extent?

We feel that this is strongly related to national planning and the people's lives. Contractual fixed purchases and market purchases can be used for farm and sideline products produced widely and in large amounts like grain, cotton, oil crops, pigs and so on. Controlling prices for key agricultural products will make planned control of price levels possible. Price levels for the large variety of category III farm and sideline products can be controlled through information guidance and strengthened market management.

4. Key households and specialized households producing all types of agricultural products have appeared in rural areas. Their production costs generally are lower and they have a higher percentage of marketed products, giving them a large influence on price levels. How can we understand this new situation?

Although the costs of the goods produced by the "two households" are lower, this is not a reason to reduce the purchase price of farm products. There should be equal prices for identical types of farm products of identical quality. Because they have a higher percentage of marketed products, sell

more and have more income, we can consider collecting taxes on some of the products (similar to the product tax for industrial products) so that farm and sideline products really are treated as commodities, like industrial products. The tax rate should be lower than that for industrial goods because of the lower degree of stability in agricultural production.

## II. We Should Study Questions of Product Prices for Processed Agricultural and Sideline Products

After the percentage of marketed products increases, the question of price parities between the purchase prices for farm and sideline products and for products processed from farm and sideline products will become more prominent. We cannot just consider the peasants but also should consider purchases of farm and sideline products. Because a substantial portion of farm and sideline product purchases are achieved through the processing of farm and sideline products, the question of whether or not the price levels for processed goods made from farm and sideline products will be accepted by consumers will in turn influence sales, purchasing, production and other links for farm and sideline products.

The increased stocks that have appeared from grain purchases require that articles be written concerning grain conversion. The development of the feed and food products industries, however, do involve a question of mixed feed prices and food product prices. Reduction or exemption from taxes for feed and food product processing is one important measure, but the basic question still is to assist processing departments to reduce costs and improve quality. Otherwise, prices will be excessive and sales outlets will not be opened, or the state can subsidize these processing industries and maintain the low prices, which also will place a burden on the state.

## III. We Should Use Prices in Preliminary Research on Problems in Implementing Agricultural Zoning

In China at the present time, we should consider changing over to planting other industrial crops, developing breeding, and other activities in areas not suited to planting grain or where yields are low. This also means that there should be gradual readjustment within a particular province, prefecture or county. This is a question of prices and involves the greater consideration given to scattered producing regions in the past. We now should use prices to promote relative centralization of production so that the peasants feel that this suits local conditions and fosters regional advantages, and that centralized production is better.

## IV. We Should Study the Question of Export Prices for Farm and Sideline Products

Exports of some farm and sideline products such as soybeans and tea leaves have declined and been squeezed out of markets in recent years. There are quality problems like excessively high farm chemical contents and other matters.



The increased percentage of marketed products for farm and sideline products in China requires that a substantial part be exported directly or exported after processing. The question in prices is whether or not quality and grade can be guaranteed to encourage the production of farm and sideline products suited to export demand.

V. We Should Study the Question of the Agricultural Tax and the Collection of Taxes on Sales of Agricultural and Sideline Products

It generally would be inappropriate to reduce the prices for farm and sideline products at the present time. As agricultural production develops and peasant incomes grow, however, we should study the utilization of tax levers to centralize a portion of peasant incomes so that they can make a corresponding contribution to the state.

At the present time, we should study whether or not it is possible to centralize a portion of the peasants' net income through greater use of tax levers. Preparations for the recent readjustment of the agricultural tax are based on readjustment within each country according to output over the past few years. This is necessary. It is not, however, tied to real incomes. We can consider collecting a product tax on the sale of some farm products (similar to the product tax on industrial goods), with a higher tax burden for those who sell more and have higher incomes. In this way, farm and sideline products will be treated as commodities just like industrial products.

12539

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NATIONAL

## DISPUTES OVER AGRICULTURAL PRODUCT PRICES DISCUSSED

Biejing NONGYE JINGJI WENTI [PROBLEMS OF AGRICULTURAL ECONOMICS] in Chinese No 2, 23 Feb 84 pp 37-40

[Article by Zhang Tong [1728 2717]: "We Also Should Discuss Several Points of Contention Concerning Agricultural Product Prices"]

[Text] After my article "Do Larger Bumper Harvests in Agriculture Mean Greater Financial Difficulties for the State?" was published in the fifth issue of NONGCUN WENTI LUNTAN [RURAL PROBLEMS FORUM] in 1982, some comrades offered different perspectives. I now will discuss some points of contention.

### I. Is There a Price Scissors Differential Between Industrial and Agricultural Products?

A key point of contention is whether or not "the price scissors differential between industrial and agricultural products has been eliminated or still exists." We first of all must clarify just what the price scissors differential is and what its implications are. I feel that the essence of the price scissors differential is that prices for industrial goods are higher than their value while the prices of agricultural products are lower than their value, which results in exchange at unequal value. The implications of the price scissors differential may be summarized in two points. The first is that it indicates a tendency toward change in exchange at unequal value for industrial and agricultural products. The second is that it indicates a situation in which the prices involved in exchange at unequal value for industrial and agricultural goods are detached from value. The core meaning of the price scissors differential is that it indicates a situation of exchange at unequal value for industrial and agricultural products. The price scissors differential exists objectively, and commodity exchange is exchange at equal value. The ratios involved in the exchange of equal amounts of farm products for industrial products, such as the exchange of wheat for tractors, chemical fertilizers, cotton cloth and so on, still remain far lower in China than on international markets. This indicates that the prices for farm products in China are too low and that the prices for industrial products are too high. The situation of exchange at unequal value for industrial and agricultural products still is very prominent.

Some comrades have told us that "advocating in actual work that the prices set for farm products should be based on their value obviously is extremely devoid of content and even absurd." The famous economist Sun Yefang [1327 0396 2455] feels that "We often say that we operate according to the law of value, which in the end is the principle for setting prices. Setting prices according to value also involves setting prices that are detached from value. Only when prices basically conform to value is it possible for the proportional relationships between all types of products and all sectors to be reflected clearly. The harm from prices that are detached from value is that things that were quite clear become very unclear. Only when prices conform to value is it possible to feel that they are suited to the nature and characteristics of the planned economy. This type of policy is the only correct type of policy." Comrade Xue Muqiao [5641 2550 2890] also feels that "When the state is setting prices for all types of commodities, it first of all must take into consideration the amount of socially necessary labor consumed in producing them so that the prices of all types of commodities basically conform to their value. For various reasons, the prices of some commodities must be slightly higher than or lower than their values for short periods of time. Overall, however, the basic principle of our pricing policies is that prices generally should conform to their value." I feel that the theory that value should be the basis for setting prices advocated by Comrades Sun Yefang and Xue Muqiao is correct. Practice has proven that this is not absurd and that it is the theoretical foundation and correct principle for us to use in formulating pricing policies.

I feel that the outcome of the long period in which China ignored the law of value in the past is that the purchase prices of primary agricultural and animal products (grain and livestock products) do not reflect their value and that they do not reflect the relationship between supply and demand. The result is substantial disorder in current pricing systems. The price ratios between industrial and agricultural products are irrational, as are the price ratios within farm products themselves. The result is frequent changes in the buying and selling prices for agricultural and animal products. This situation of disorder must be reformed. I do not agree with those comrades who argue that "stabilizing the products for agricultural products is economically necessary and rational." I feel that value should be the basis for formulation of farm product prices and that we also should consider the relationship between supply and demand, prices will be able to fluctuate around their value. The emphasis on stabilized prices for many years actually is not stability. Aren't the 50 percent higher prices paid for over-quota purchases actually a price increase? If there had been true stability in product purchase prices before 1978, the greatly improved agricultural situation today would not have come about. Only by establishing rational pricing systems and consciously employing the law of value will it be possible for the improved situation in the development of the national economy to continue.

## II. Is It Possible To Know the Value of Commodities?

Some comrades have pointed out that "Evaluating the degree to which prices are detached from value is a very complex matter. We have no way of knowing

the value of a commodity in economic life. We can only know the price of a commodity." They even feel that "using the ratio between price and value as a basis for readjustment of current prices is inappropriate in theoretical terms and impossible in practice" (see JIHUA JINGJI DIAOYAN CAILIAO [SURVEY RESEARCH DATA ON THE PLANNED ECONOMY] No 2, 1983). Is there no way to know the amount of value of a commodity? Is it inappropriate to use the ratio between price and value to study the price scissors differential? The price of a commodity is a monetary expression of the value of that commodity. Comrade Sun Yefang feels that "the amount of socially necessary labor in socialist society can be calculated by various methods. The possibility of being able to calculate rather precisely the amount of socially necessary labor is determined by the socialist system. The only requirement is that our calculations should be accurate overall. This can be achieved by experience and by applying modern calculation techniques." Based on Marx's theory of value and the viewpoint of Sun Yefang, we can estimate industrial and agricultural labor power. Some comrades already have used formulas to estimate the price scissors differential. Although the numbers may not be extremely accurate, they are believable overall.

Is it appropriate to use the ratio between price and value as a basis for price readjustments? Marx pointed out that "commodities can be sold at a price that is detached from their value, but this detachment violates the law of commodity exchange. In its purest sense, commodity exchange is exchange at equal value, not a means for increasing value" ("Collected Works of Marx and Engels", Vol 23, pp 180-181, Renmin Chubanshe, September 1982). We can see that prices that are detached from value violate the laws of commodity exchange and are not conducive to development of commodity production. Practice in China also has proven that Marx's theory is correct. Before 1979, the prices of agricultural products were about 35 percent below their value, seriously detached from value. Agricultural production developed slowly. After purchase prices for primary agricultural products were raised in 1979, the extent to which the prices of agricultural products were detached from their value was reduced and agricultural production developed quickly. There were major increases in the amount of commodities and the percentage of marketed commodities for agricultural products.

The law of value is an economic law of commodity production. China has a socialist economy and a policy of planned prices. The state sets the prices of all primary industrial and agricultural products. After purchase prices for agricultural products were raised in 1979, there was a reduction in the price scissors differential between industrial and agricultural products. The price scissors differential between industrial and agricultural products (exchange at unequal value between industrial and agricultural goods) still exists, however. Prices for farm products remain lower than their value and the prices of industrial products remain higher than their value, so the situation of exchange at unequal value for industrial and agricultural products still exists. The question of whether or not we agree with short-term stabilization of farm product prices is not the core of the debate. Instead, the main question is whether the price scissors differential between industrial and agricultural goods still

exists and whether exchange at unequal value for industrial and agricultural products still exists. No one is advocating the elimination of the price scissors differential at the present time, only that we cannot allow the price scissors differential to expand again. I pointed out in my article that "as the national economy develops, we gradually should reduce the price scissors differential between industrial and agricultural products in China." Comrade Wei Shuangfeng [7614 7175 7685] pointed out that "a solution to the problem of the price scissors differential will involve a long period of hard work and a gradual process that will make exchange at equal value for industrial and agricultural products ever more rational." Comrades Wu Rong [0702 3579] and Guan Defu [7070 1795 1381] pointed out that "clearly understanding that the prices for agricultural products are detached from their value and pointing out the fact that their prices are lower than their value is not the same as advocating that the prices for agricultural products should be identical to their value." Comrades Lei Xilu [7191 6932 4389] and Ye Ruixiang [0396 3843 4382] pointed out that "as industrial and agricultural production develops and the state's financial situation takes a turn for the better, we should gradually raise the purchase prices for farm and sideline products in the future, and we should continually improve agricultural labor productivity and thereby reduce the price scissors differential." In summary, there is no basis for the thesis of some comrades that there is dissension concerning whether or not the core of the so-called debate "is whether or not the overall level of purchase prices for agricultural products should be stabilized." The price scissors differential exists objectively and we cannot assume that stabilization of farm product prices is due cause for ignoring the price scissors differential.

Some comrades point out that "after several years of readjustment, the proportional relationship between industry and agriculture basically is appropriate, and we can infer from this that the price parity in exchanges of industrial and agricultural products conforms to the principle of exchange at equal value and thereby the law of value." "Inferring" that the price parity in exchanges of industrial and agricultural goods conforms to the principle of exchange at equal value and attributing the improved situation in agricultural production to the rationality of overall farm product price levels is unconvincing. Data, proof and quantitative analysis are required to determine whether or not industrial and agricultural products are exchanged at equal value. We cannot attribute the magnificent achievement of the highest levels of agricultural production in history entirely to the achievement of rationality in price parities for industrial and agricultural products. These magnificent achievements in agricultural production are the result of a reliance on policy, science and comprehensive factors. This is especially true of the continual perfection of systems of contractual responsibility for output quotas, which have raised the peasants' enthusiasm for production, to the development and application of science and technology, and to increased farm product purchase prices and other factors that have spurred the development of agricultural production. We also should realize that the yearly reductions in the price scissors differential for industrial and agricultural products and the gradual reduction of the degree to which the prices of

agricultural products are lower than their value is another factor that has promoted the development of agricultural production.

The raising of purchase prices for farm products truly spurred the development of agricultural production. There have been successive years of bumper farm harvests and peasant incomes have increased. Given this situation, some comrades feel that the peasants have gotten too wealthy and proposed the collection of large amounts of capital from the peasants to assist in state construction. We feel that, despite the increased output in agriculture in recent years and the increase in peasant incomes, the differential between town and countryside remains large. The average annual percapita consumption level in 1982 was 212 yuan for rural residents and 501 yuan for urban residents. The urban figure is 2.4 times the rural figure. Some comrades even have said that this "is suitable overall." It must be pointed out that the average percapita benefits from the state financial subsidies in urban areas are larger than in rural areas. Urban residents received an average of 95.81 yuan in subsidies. The figure was only 14.73 yuan for rural residents. There are only extremely small numbers of 10,000 yuan households and rich households in rural areas now and they account for a very small proportion. For various policy reasons, the benefits from planting grain are not as high as those for cash crops. Cropping provides fewer benefits than does economic diversification. The diversified economy has lower returns than processing industries. Processing industries provide fewer benefits than commerce and long-distance buying and shipping. The easiest paths to wealth are commerce and the processing industry. The state gets more financial income and should collect high levels of accumulation taxes from these 10,000 yuan household and rich households. It should not increase the burden on cropping. The development of cropping is affected by such things as raising the selling prices of agricultural means of production and lowering purchase prices for farm products or reducing award sales. This inevitably would increase the burden on those engaged in cropping, reduce their incomes and lower their ability to invest in expanded reproduction. State centralization of capital to guarantee key construction projects is necessary, but there should be a limit to the amount of capital that can be centralized from the peasants. It must be done ethically and rationally. We must consider both the needs of the state and the ability of the peasants to bear the burden. We cannot weaken the ability of the peasants for expanded reproduction, and we must take into consideration the development of all lines of activity in rural areas and the construction of new civilized villages.

### III. Do Bumper Agricultural Harvests Increase or Reduce State Financial Income?

China has a policy of planned prices. Overly low prices for agricultural products and even lower selling prices cause frequent changes in buying and selling prices and the adoption of financial subsidies. Bumper agricultural harvests cause an increase in state subsidies, which has led some comrades to feel that they increase the "burden" on the state. They say that "allowing the state to bear the financial burden" and "advocating that 'the larger the bumper harvest, the better' solely from the



perspective of production are bad things." They consider bumper agricultural harvests to be the main reason for the growing fiscal deficits. Some comrades advocate controlling state financial subsidies by restricting agricultural output. How should one view this question? I feel that since industrial and agricultural products are exchanged at unequal value (the price scissors differential) and because the prices of farm products are lower than their values, we cannot simply look at agricultural products in terms of elementary products. Instead, we should look at the final goods that use farm products as raw materials. In 1982, China received 45.5 billion yuan in taxes and profits from the food products, textile, commerce, supply and marketing and other systems that use farm products as raw materials. Bumper agricultural harvests lead to corresponding increases in taxes and profits in the food products, textile, commerce, supply and marketing, transportation and other systems that use farm products as raw materials. Bumper agricultural harvests can increase exports or decrease imports of certain farm products. This can increase the state's foreign exchange earnings or reduce its foreign exchange expenditures. Agricultural bumper harvests provide substantial employment opportunities in the food products, textile, commerce, supply and marketing, shipping and other departments that use farm products as raw materials. According to a survey by the Ling County Rural Development Research Group of the Chinese Academy of Social Sciences, and using the Dezhou Cotton Mill as an example, the taxes and profits on each 100 jin of lint cotton after going through several stages of processing, commodity circulation and other links amounted to 190.09 yuan. Deducting 39.75 yuan per 100 jin of lint cotton for state subsidies, the state still increased its financial income by 150.34 yuan. These data illustrate effectively that although a bumper cotton harvest does increase state financial subsidies, the increased income and taxes due to the bumper cotton harvest are 2.8 times more than the financial subsidies. I am not, of course, advocating that more granaries be built to purchase overstocks of farm products. If products aren't consumed, then they are wasted overstocks. There should be rational reserves of agricultural products, but exceeding the needed amount of reserves is wasteful and can lead to financial problems. Most agricultural and livestock products are being consumed at low levels in China at the present time. We should readjust the proportional relationship between accumulation and consumption, since production growth requires a corresponding increase in consumption levels. We may go so far as to control the production of flue-cured tobacco, cotton and other products where social demand basically has been met.

There are many reasons for the state financial deficits. We cannot allow the insignificant to overshadow the important and attribute everything to bumper agricultural harvests. The view that "bumper grain harvests are the primary reason for state financial deficits" is not convincing. National income from agriculture accounts for 44.9 percent of gross national income. We should just decrease agricultural output and improve the state's financial situation! Bumper agricultural harvests increase the material wealth of society. The peasants become wealthy and the nation gets stronger. Increased amounts of farm products also can improve the people's standard of living, expand consumption markets and increase the



withdrawal of currency from circulation. In terms of the overall national economy, bumper agricultural harvests are not a "burden." Instead, they increase the wealth of society and can promote development of the national economy and form benign cycles in the national economy. The experience of this benign cycle should be cherished and upheld.

Some comrades feel that the increased output of agricultural products in recent years has been excessive and has caused large amounts of reserves and overstocks that state finances cannot subsidize. Some have even gone so far as to consider bumper agricultural harvests "bad things." Are there too many farm products in China or a "surplus?" If we compare China with average world levels, then there definitely are not too many farm products. Instead, we cannot satisfy demand. Can we say that China, a socialist country, has too many farm products when percapita amounts of farm products are so much lower than average world levels? The so-called overstocks and problems in selling are caused by the fact that economic policies are not suited to the current situation. They involve questions of a redistribution of national income. We should solve circulation problems, price problems and the problem of a balance between production and consumption. Development of production leads to a corresponding increase in consumption. We cannot suppress or obstruct production because of low consumption. Decreased rapeseed output last year now has led to a reduction in reserves and supply shortages. Flue-cured tobacco, cotton and other products exceed consumer demand and their production should be controlled if no way can be found to sell them on international markets. Problems of inadequate supplies persist for grain, oil crops, sugar, meat, milk, eggs, fish, fruit and other products. These problems involve making proper policy arrangements and opening up circulation channels. We should readjust the balance between production and consumption, which is a question of increased consumption. We cannot reduce output but should continue to develop production to gradually improve the people's standard of living and strive to achieve a comfortable level as soon as possible.

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NATIONAL

#### GROSS OUTPUT VALUE OF AGRICULTURE DEFINED

Beijing NONGCUN CAIWU KUAIJI [RURAL FINANCIAL AFFAIRS] in Chinese No 12,  
6 Dec 84 and No 1, 6 Jan 85

[Article by Wu Yongxiang [0702 3057 4382]: "Discussion No 10 on Calculating the Gross and Net Output Values and the Commodity Output Value of Agriculture"; Later installment published in JPRS-CAG-85-012 (15 April 1985) pp 1-4]

[No 12, 6 Dec 84 pp 34-36, 8]

[Text] I. Calculating the Gross Output Value of Agriculture [GOVA]

A. The GOVA calculation scope. The GOVA includes the output values of farming, forestry, animal husbandry, sideline production and fishery. It does not include the output value of income of other sections of rural cooperative economic organizations (i.e. the former rural people's communes) which engage in matters other than agricultural production (such as the output values of commune-run industry and the construction industry, and the income obtained from engaging in communications, transportation and service industries). The state has uniformly stipulated the scope of the five industries of farming, forestry, animal husbandry, sideline production and fishery as follows:

1. Farming refers to production of such products as grain, cotton, oils, hemp, mulberry leaves, tea, sugar, vegetables, tobacco, fruit and medicinal drugs. Farm products include those in the following 6 categories:

- (1) Cereal crops including such staples as rice, wheat, corn, other food grains, potatoes and soybeans (including soybeans, black soybeans and green soybeans) and straw by-products such as rice and wheat straw.
- (2) Cash crops including major and by-product crops such as cotton, oils, hemp, sugar, tobacco and medicinal drugs (artificially cultivated).
- (3) Vegetables and melons including all vegetables and fruit melons.
- (4) Tea, mulberry leaves and fruit.
- (5) Feed and green manure crops.
- (6) Other crops including products such as aquatic plants (lotus root and seeds), flowers and plants, sisal hemp, raw hemp and lemongrass.

2. Forestry refers to production activity such as the cultivation of forest trees, the collection of forest products and the felling of bamboo trees by production teams and brigades subordinate to rural cooperative economic organizations. Forestry products include those in the following three categories:

- (1) The growth volume of forest trees planted by man.
- (2) Forest products including rubber, raw lacquer, tung oil tree seeds, tea-oil tree seeds, palm parts, walnuts, Chinese chestnuts and the seeds of all trees.
- (3) Bamboo trees felled by production teams and brigades subordinate to rural cooperative economic organizations.

3. Animal husbandry refers to production activity in raising and herding all animals except fish. Animal husbandry products include those in the following categories:

- (1) The breeding (farrowing), growth and weight increase of small and large domestic animals.
- (2) The raising of poultry (such as chickens, ducks and geese).
- (3) Livestock and poultry products including milk, sheep's wool, cashmere, camel hair, horse tails, and eggs.
- (4) Products obtained from raising and herding other animals (such as bees, silkworms, rabbits, deer, wax insects and other wild animals with valuable furs) including silkworm cocoons, honey, beeswax, pilose antlers, deer whips, white wax, rabbit fur, rabbit skin and other wild animal skins.

4. Sideline production refers to collecting, hunting, industrial production activity by production teams and brigades subordinate to rural cooperative economic organizations, and commune member and family-run industrial and handicraft (commercial sector) production activity. Sideline products include those in the following five categories:

- (1) Collected wild plants including collected wild medicinal drugs, fibers, oils, starch and firewood.
- (2) Wild animals and birds obtained by hunting.
- (3) Industrial products handled by production brigades.
- (4) Industrial products handled by production teams.
- (5) The commercial product sector of commune members and family-run industrial and handicraft products.

5. Fishery refers to production activity such as breeding and fishing for aquatic animals and seaweed. Fishery products include those in the following two categories:

(1) The breeding of aquatic animals (such as fish, shrimp, crabs and shellfish) and seaweed (such as kelp and Chinese gromwell).

(2) Fishing for natural aquatic animals (including sea and freshwater fishing) and collecting natural seaweed.

The PRC's present agricultural statistics system has stipulated that the basic level statistics units for the GOVA are county-level statistics and agricultural departments. When calculating the GOVA, all provinces (municipalities and autonomous regions) and counties (cities, banners and districts) should include the output value of all agricultural products produced that year by administrative divisions under their jurisdiction. In other words, they must include all agricultural products produced by all units engaged in agricultural production under their jurisdiction which are state-owned or collectively owned, agricultural scientific research units, agricultural colleges and universities, contract managed households, individually managed households and non-agricultural production units (such as factories, mines, organs and schools), but not include the non-agricultural sector of agricultural scientific research units of agricultural colleges and universities which do special, experimental research, or the army horses of military departments.

The GOVA is calculated according to the calendar year. All agricultural products produced during the period from 1 January to 31 December should be included in the calculation scope. Specific agricultural products (such as sugarcane) which have harvest periods extending into the beginning of the following year should still be counted in the previous year's GOVA.

B. The GOVA calculation prices. The state has uniformly stipulated that the GOVA should be separately calculated according to both current and fixed prices.

The GOVA calculated according to current prices can reflect the actual conditions of the year's agricultural production in all areas and the actual proportional relationship between all production and can also play a major role in calculating the net value and commodity output value of agriculture and in analyzing and studying problems such as the production, distribution, consumption and accumulation of national revenue.

Current prices are the year's actual prices in all areas. All agricultural products which are under state monopoly procurement use average annual state monopoly procurement prices as current prices. Average state monopoly procurement prices equal the total volume of state monopoly procurement throughout the year divided by the total amount of money spent for state monopoly procurement throughout the year. All agricultural products which are not under state monopoly procurement use the year's average prices of the producing area's primary markets or country fair trade as current prices.

and agricultural products with large seasonal price differences can use the prices when most of them go on the market as current prices. All agricultural output such as green manure and afforestation which do not have market prices use production cost as output value, and production cost should include material costs for such things as seeds, fertilizer, pesticides, animal power production, machinery operation and joint agriculture as well as manpower costs.

The GOVA calculated according to fixed prices can eliminate the effect of price changes in different years and price differences in different areas, enabling the GOVA to be constant in different years and areas. Fixed prices are therefore also called constant prices.

Fixed prices are the prices of products in a certain fixed year. Fixed prices are uniformly stipulated by the state, and representative years in the development of the national economy are generally chosen as the years to stipulate fixed prices. Since the founding of the PRC, we have used the fixed prices of 1952, 1957 and 1970, and since 1981, those of 1980. In different periods of national economic development, using the GOVA's of different years calculated according to fixed prices can reflect the actual development level of the period's agricultural production; in the same period, comparing the GOVA's of different years calculated according to fixed prices can show the developmental changes of the period's agricultural production.

[No 1, 6 Jan 85 pp 44-50]

[Text] C. The gross output value of agriculture [GOVA] calculation methods. The GOVA is generally calculated by using the "product method." When calculating the GOVA according to the product method, we first use the method of multiplying the output of each agricultural product by its price to find the output value of each agricultural product, then separately classify them to find the output values of the five industries of farming, forestry, animal husbandry, sideline production and fishery, and finally add up the output of the five industries to find the GOVA.

Since the GOVA includes the output values of these five industries and production in each has its own characteristics, the methods of calculating their output values are thus different and must be separately explained.

1. Calculating the output value of farming: The output value of farming is calculated by adding up the output values of all agricultural products in the following six crop categories:

(1) The output value of grain crops includes the output values of major products such as paddy rice, wheat, corn, millet, gaoliang, miscellaneous other grains, tubers (including sweet potatoes, potatoes and other tubers) and soybeans (including soybeans, black soybeans and green soybeans) on the one hand, and the output values of by-products such as straw, wheat husks and potato vines on the other. Both are calculated by the method of multiplying the output of each times its price. The output of major products can be obtained from agricultural statistics report forms, and the output

of by-products can be calculated by multiplying the by-product output of all grain crops per unit of harvested area obtained through typical or sample investigations times the harvested area of all grain crops, and can also be calculated by the proportional data for the output of major and by-products of all grain crops obtained through typical or sample investigations.

(2) The output value of cash crops: Cash crops are divided into the following seven categories and their output values can all be calculated by multiplying the output of all products times their prices.

a. The output value of cotton includes the output value of unginned cotton and cotton stalks.

b. The output value of oil-bearing crops includes the major and by-product output values of peanuts (unshelled dry peanuts), rapeseeds, sesame, string hemp seeds, flaxseeds, sunflower seeds, perillaseeds, castor oil seeds and other oil-bearing crops.

c. The output value of hemp includes the major and by-product output values of jute, (bluish dogbane), hemp (string hemp), ramie, flax and other hemp crops. But it does not include the output value of wild hemp.

d. The output value of sugar crops includes the major and by-product output values of sugarcane (including fruit sugarcane) and sugarbeets.

e. The output value of tobacco includes the major and by-product output values of flue-cured and sun-cured tobacco.

f. The output value of medicinal herbs refers to the major and by-product output values of all artificially cultivated medicinal herbs.

g. The output value of other cash crops includes the major and by-product output values of spices (such as spearmint and peppermint), dyes (such as dye yam and indigo) and other cash crops.

When calculating the output value of cash crops, the major product output figures for most crops such as cotton, oil-bearing crops, hemp, sugar and tobacco can be obtained from agricultural statistics report forms, and by-product output calculation methods are the same as those for grain crops. The outputs of artificially cultivated medicinal herbs and other cash crops can be calculated according to cultivated area and also according to procurement volume based on procurement department research.

(3) The output value of vegetables and melons: The output value of vegetables is calculated by multiplying the output of all vegetables (including melons used as vegetables) times their prices. The output value of melons is calculated by multiplying the output of all fruit melons (such as watermelon and muskmelon) times their prices.

The output of vegetables and melons can be obtained from agricultural report forms, and the output of certain fairly detailed, separate varieties can be

calculated by combining typical investigation and procurement department research.

(4) The output value of special crops such as tea, mulberries and fruit is separately calculated according to tea leaves, mulberry leaves and fruit.

a. The output value of tea leaves is calculated by multiplying the output of all crude tea such as black, green, oolong and other teas times their prices.

b. The output value of mulberry leaves is calculated by multiplying the amount of mulberry leaves used to raise Chinese silkworms times their price.

c. The output value of fruit is calculated by multiplying the output of all fruit times their prices.

The output figures for tea and fruit can be obtained from agricultural statistics report forms. The figures for mulberry leaves picked for sericulture can be calculated according to the silkworm cocoon output on agricultural statistics report forms and the amount of mulberry leaves needed to produce a dan of silkworm cocoons derived through typical investigations.

(5) The output value of fodder and green manure crops is calculated by multiplying the area sown to fodder and green manure crops times their cost per mu. The area sown to fodder and green manure crops can be obtained from agricultural statistics report forms.

(6) The output value of other crops refers to the output value of crops not belonging to any of the above categories including aquatic plants (such as reeds, calamus, lotus seeds, lotus root and water chestnuts), flowers and plants, sisal hemp, raw hemp, lemongrass and artificially cultivated mushrooms. The output value of these crops is generally calculated by multiplying output times price. The output value of flowers and plants only includes the value of commodity-type ornamental flowers and house plants. The output figures for aquatic plants and other crops can be calculated from related data from procurement and other departments.

2. Calculating the output value of forestry: The output value of forestry includes the output value of the afforested growth volume, the output value of forest products and the output value of bamboo and trees felled by individual commune members, production teams and production brigades of rural cooperative economic organizations (the former rural people's communes).

(1) The output value of the afforested growth volume is calculated by the cost of all afforestation production activity. Afforestation production activities include area sown to seedlings, the afforested area, the number of trees planted in scattered areas, the slash renewal area, the young growth nurture area, and the tended cutover area. Separately multiplying the areas of these 6 production activities times cost per mu and then adding them can calculate the output value of the afforested growth volume. The area data



for these 6 production activities can be obtained from forestry production statistics report forms.

(2) The output value of forest products is calculated by multiplying the amount of all forest products collected from artificially cultivated bamboo and trees without cutting the roots times the prices of these products. Forestry products include rubber, raw lacquer, coir fiber, Chinese gall, pine resin, bamboo shoots, tung oil seeds, tea oil seeds, Chinese tallow, walnuts, Chinese chestnuts, all tree seeds, and the branches and leaves obtained from pruning bamboo and trees. Output data on forestry products can be collected from forestry and procurement departments or by making investigations in major producing areas.

(3) The output value of bamboo and trees felled by individual commune members, production teams and production brigades of rural cooperative economic organizations (the former rural people's communes) is calculated by multiplying the quantity of bamboo and trees felled times their prices. Data on the quantity of bamboo and trees felled can be collected from forestry departments or by making investigations in major producing areas.

3. Calculating the output value of animal husbandry: The output value of animal husbandry includes the output value of the breeding, growth and weight increase of small and large domestic animals, the output value from raising poultry, the output value of live livestock and poultry products, and the output value from raising other animals.

(1) The output value of the breeding, growth and weight increase of small and large domestic animals: Separately use the following calculation methods according to the various growth conditions of small and large domestic animals.

--The output value of the breeding, growth and weight increase of large domestic animals (including cows, horses, donkeys, mules and camels) includes the output value of newborn animals and the output value of the growth and weight increase of young stock.

a. The output value of newborn animals is separately calculated by multiplying the year-end headcount of all newborn animals which are less than a year old times their price per head.

b. The output value of the growth and weight increase of young stock is calculated by multiplying the year-end headcount of all ages times the increased prices of all age groups in a year. The increased price of a certain age group of young stock equals the difference between the price of the age group of young stock minus the price of young stock of a year younger age group. For instance, the price per head of young 2-3 year-old cows is 80 yuan, the price per head of 1-2 year-old cows is 50 yuan, and the increased price per head of young cows in the 2-3 year-old age group is thus 80 minus 50 or 30 yuan. The method of distinguishing age groups is 1 year per group and they are divided into groups such as 1-2 year-old stock, 2-3 year-old stock and 3-4 year-old stock. When calculating the output value for the

growth and weight increase of young stock, cows and donkeys are only counted to 3 years old, horses and mules only to 4 years old. Older age groups of livestock generally do not grow further so the output values of increased growth and weight are not calculated.

The above calculation method is expressed in the following formula:

The output value of large domestic animals equals the year-end headcount of newborn animals bred during the year times the price per head of newborn animals plus the year-end headcount of 1-2 year-old stock times the increased price per head for a year plus the year-end headcount of 2-3 year-old stock times the increased price per head for a year plus the year-end headcount of 3-4 year-old stock times the increased price per head for a year.

--The output value of the breeding, growth and weight increase of hogs: The output value of the breeding, growth and weight increase of hogs is usually calculated by the following formula:

The output value of the breeding, growth and weight increase of hogs equal (the year's net increased headcount divided by 2 plus the year's headcount of big porkers butchered and the net number shipped out) times the price of big porkers.

In the formula, the year's net increased headcount equals the year-end headcount of the amount of livestock minus the headcount of the amount of livestock at the beginning of the year. The year's net increased headcount divided by 2 shows that in the year's net increased headcount, 2 head amount to 1 big porker in calculating output value. The year's headcount of big porkers butchered the net number shipped out equals the year's butchered headcount plus the year's headcount of live big porkers shipped out minus the year's headcount of live big porkers shipped in.

—The output value of the breeding, growth and weight increase of sheep: The calculation formula is as follows:

The output value of the breeding, growth and weight increase of sheep equals (the year's net increased number plus the year's number of those butchered and shipped out, plus the year's number of those which died divided by 3) times the price of adult sheep.

In the formula, the number of those which died is only counted in livestock areas and only the number of those which died in the winter, and is not generally counted in farming areas. The year's number of those which died divided by 3 shows that in the year's number of those which died, 3 amount to 1 adult sheep in calculating output value.

(2) The output value from raising poultry is generally calculated by multiplying the year-end number of all poultry times the price of adult poultry. If they have mastered the essential data, certain areas can also calculate it according to the following formula:

The output value of some poultry equals (the year's net increased number plus the number of those butchered, sold and shipped out during the year minus the number of those bought and shipped in during the year) times average poultry prices.

(3) The output value of live livestock and poultry products: Live livestock and poultry products refers to all livestock and poultry products obtained without butchering the animals. These include cow's milk, goat's milk, eggs, sheep's wool, camel hair and rabbit fur. Its output value is separately calculated by multiplying the output of all livestock and poultry products times their prices.

(4) The output value from raising other animals: Raising other animals includes raising silkworms, bees, deer and wild animals with valuable furs, and their output value is separately calculated by multiplying the output of all products times their prices.

The data needed to calculate the output value of animal husbandry can be obtained from agricultural production statistics report forms and can also be calculated from the knowledge of concerned departments or through typical investigations.

4. Calculating the output value of sideline production: The output value of sideline production includes the output value from collecting wild plants, the output value from hunting wild birds and animals, the output value of production brigade-run industries, the output value of production team-run industries and the output value of commercial products of commune member and family-run industries and handicraft industries.

(1) The output value from collecting wild plants is calculated by multiplying the number of primary products (unprocessed) such as all collected wild medicinal herbs, fiber raw materials, oil-bearing crops, starch raw materials and firewood times their prices.

(2) The output value from hunting wild birds and animals is calculated by multiplying the number of products obtained by hunting (such as fox fur, deer skins, antlers, pheasants and wild ducks) times their prices.

(3) The output value of production team and production brigade-run industrial production should be separately calculated according to the nature of the industry.

The output value from production activity in simple processing of agricultural products (such as rice husking, flour milling, butchering, cotton ginning and feed processing), granular fertilizer manufacturing and simple fertilizer processing, sewing, farm tool and furniture repairing and other industrial production is all calculated according to processed value. Processed value is the difference between prices of products after processing and before processing, and when given for processing, is calculated according to the included processing costs.

The output values from pressing oil, refining sugar, making wine, making vinegar, mining, coking, iron-smelting, baking bricks and tiles, manufacturing tools and farm implements, manufacturing homemade chemical fertilizer, paper-making and weaving are all calculated by multiplying the end product output of these production activities times their prices.

(4) The output value of commune member and family-run industries and handicraft industries (commercial sector) is calculated by multiplying the number of their products sold times their prices.

Data to calculate the output value of sideline production can be obtained from agricultural production statistics report forms and from rural cooperative economic income distribution investigation data.

5. Calculating the output value of fishery: The output value of fishery includes the output value from breeding aquatic animals and seaweed and the output value from fishing for natural aquatic animals and collecting natural seaweed.

(1) The output value from breeding aquatic animals and seaweed is separately calculated by multiplying the catch of cultivated sea and freshwater aquatic animals (such as fish, shrimp and shellfish) and the collection volume of cultivated seaweed (such as kelp and laver) times the prices of these products. The amount which is uncaught and left in the water is not counted in output value.

(2) The output value from fishing for natural aquatic animals and collecting natural seaweed is separately calculated by multiplying the sea and freshwater catch times the prices of these products.

All data needed to calculate the output value of fishery can be obtained from aquatic product statistics report forms.

D. The GOVA development rate. In order to explain the development of agricultural production, it is necessary to calculate the GOVA development rate. The GOVA development rate is a comparison of the GOVAs of two different years calculated according to fixed prices. If the GOVA figures for two different contrasted years are calculated according to the same fixed prices, they can be directly compared in order to calculate the development rate. The GOVA's fixed base development rate using a certain year as the base period is also called the GOVA index. For instance, calculated according to 1952's fixed prices, the PRC's 1952 GOVA was 48.4 billion yuan, 1957's was 60.4 billion yuan, and comparing 1957 to 1952, the GOVA development rate was (60.4 divided by 48.4) times 100 percent or 124.8 percent. In other words, using 1952 as 100, 1957's GOVA index was 124.8 percent.

Under the conditions wherein the GOVA figures for two different contrasted years are calculated according to two different fixed prices and certain changes have occurred between them, it is generally necessary to use the method of multiplying the comparative indexes to find the fixed base index in order to calculate the GOVA development rate. The calculation formula is as follows:

The reporting year's development rate in comparison to the base year equals the gross output value of the first fixed price changeover year (calculated according to the earliest fixed prices) divided by the gross output value of the base period year (calculated according to the earliest fixed prices) times the gross output value of the second fixed price changeover year (calculated according to the fixed prices of the first changeover) divided by the gross output value of the first fixed price changeover year (calculated according to the fixed prices of the first changeover) times the gross output value of the reporting year (calculated according to the fixed prices of the most recent changeover) divided by the gross output value of the most recent fixed price changeover year (calculated according to the fixed prices of the most recent changeover).

Because we have used the four fixed prices of 1952, 1957, 1970 (first used in 1971) and 1980 since the founding of the PRC, if X represents product output and Y represents fixed prices, the above calculation formula can be simplified as:

The reporting year's development rate in comparison to the base year equals  $(X_{1957}Y_{1952} \text{ divided by } X_{1952}Y_{1952})$  times  $(X_{1971}Y_{1957} \text{ divided by } X_{1957}Y_{1957})$  times  $(X_{1980}Y_{1970} \text{ divided by } X_{1971}Y_{1970})$  times  $(X_{\text{reporting year}}Y_{1980} \text{ divided by } X_{1980}Y_{1980})$ .

For instance, the PRC's GOVA data are as follows in Table 10-1.

我国农业总产值

图表10-1

单位: 亿元

	1952	1957	1951	1980	1981	1982
(1) 按1952年不变价格计算	484	604	—	—	—	—
(2) 按1957年不变价格计算	—	537	738	—	—	—
(3) 按1970年不变价格计算	—	—	1,090	1,646	—	—
(4) 按1980年不变价格计算	—	—	—	2,223	2,365	2,629

— 49 —

Table 10-1. PRC GOVA Unit: 100 million yuan

Key:

1. Calculated according to 1952's fixed prices
2. Calculated according to 1957's fixed prices
3. Calculated according to 1970's fixed prices
4. Calculated according to 1980's fixed prices

Based on data from Table 10-1, the GOVA development rate of 1981 as compared to 1952 is:

The GOVA development rate of 1981 compared to 1952 equals (604 divided by 484) times (738 divided by 537) times 1,646 divided by 1,090) times 2,369 divided by 2,223) or 1.248 times 1.374 times 1.510 times 1.066 or 2.760 or 276 percent.

The GOVA development rate of 1982 compared to 1952 equals (604 divided by 484) times (738 divided by 537) times (1,646 divided by 1,090) times (2,629 divided by 2,223) or 1.248 times 1.374 times 1.510 times 1.183 or 3.063 or 306.3 percent.

It can be seen from the above calculations that in order to calculate the GOVA's fixed base development rate (i.e. the GOVA index) of the reporting year using 1952 as the base period, it is necessary to multiply the comparative development rates of the GOVAs of the 3 fixed price changeover years of 1957, 1971 and 1980, and then multiply times the comparative development rates of the GOVAs of the reporting year compared to 1980 calculated according to 1980 fixed prices. Since the numerical values of the comparative rates of the first 3 fixed price changeover years are fixed, the procedure to calculate the GOVA development rate according to this method is very handy.

12267

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NATIONAL

#### AGRICULTURAL SIDELINE PROCESSING URGED

Beijing NONGMIN RIBAO in Chinese 2 Feb 85 p 1 .

[Article: "Rural Area Encouragement in Agricultural, Sideline Product Processing Industry Urged"]

[Text] Agricultural production in China is still largely at the stage of producing raw material. Thus agricultural sideline industries have not yet become industrial enterprises in our rural areas, nor have they become a structural part of overall agricultural production.

Since the change in the basis of our agricultural production to commodity production, our farmers have left the soil without leaving their rural base, and they have also entered factories without going into the cities. Therefore, there is a great demand for rapid development in the processing industry in our rural areas. The processing industry is an important way of utilizing the farmers' surplus energy as well as being the key in turning agricultural products into commercial goods. The processing of some agricultural sideline products changes the raw material into finished or semi-finished goods and as a result, these processed goods have values in the market that are much higher than those for raw unprocessed products. This is because processing may produce goods either more in keeping with the demands of society or whose novelty is more appealing to consumers, thus creating new demands. In addition, the processing industry may produce in accordance with the changing market. At the same time, the processing industry will help adapt some of agricultural products as suitable to serve different purposes, thus helping maintain stable demand for their production. In this regard, farmers will transfer their raw material production to various processing units, which in turn will subsequently send their processed products to the market for exchange. It is apparent, therefore, that the processing industry has become an important link in the exchanges between the scattered small-scale production of raw materials and the more concentrated larger-scale model of commodity exchanges. This importance of the processing industry, therefore, is a significant step in the present rural development of commodity production.

The development of the processing industry in the rural areas will, as a rule, advance both the production of the relevant raw material and some of the subsidiary enterprises. Therefore, appropriate planning in developing



agricultural sideline production will result in the more rapid structural change of rural production. The undertaking of processing in the local regions will also help reduce losses and waste. In the past, some farmers sent their raw material to the cities, then such byproducts as chaff, bran, pastries and dregs of rice would be sent back to the rural villages. The transportation cost alone was a factor in the overhead increase. Now with some of the processing industries undertaken locally in the rural areas, some of these byproducts may be utilized and made into ever salable products. Therefore the agricultural sideline industry in general will help increase the value of some products, thus increasing the financial gains of farmers.

The development of the processing industry in the rural areas would hold the following two keys in the overall rural economy: First, the processing industry is linked to the market and the consumers at one end and its other end is linked to the production of raw materials and the producer farmers. The processing industry, therefore, can be considered as a conveyance of information in guiding farmers in their production by means of the needs and demands in the market. Therefore, only through the gradual development of the processing industry will production in the rural areas be gradually changed into the structural model of "commercial agriculture" that is carried on in accordance with marketing needs. Second, the processing industry may also become the key in developing the new model of economic cooperation. The corresponding development of both a commodity economy and a processing industry will help bring the scattered sources of agricultural production closer to the processing industry. In addition, the further development of agricultural sideline industries will also lead to the formation of more cooperative ventures and, therefore, on the one hand, the processing industry will accordingly maintain the basis of family management and, on the other hand, it will help unite the scattered family production units into special organizations. As a result, both the causes of specialization and socialism will be carried out in practice and the sizes of the individual rural management models will also be enlarged. From the viewpoint of long-term development, it is, therefore, important that the agricultural sideline processing industry be carried out widely by farmers in rural areas in accordance with the basis that has been determined.

China is now paying great attention to solving problems, such as the inequitable pricing system, that are slowing down the development of the rural processing industry. This year, our country has decided to support the animal feed processing industry as an important enterprise, as well as providing assistance to other food industries. From now on, development of the rural processing industry has to be supported by the country, both organizations and individuals. The newly developed agricultural sideline industries should from now on be located in rural areas. The state-managed processing industries should be run jointly with farmers when conditions are appropriate. In cases where it is not practical to carry out joint management, close economic ties should be

established between these state-run processing industries and farmers. In any case, these state-managed processing industries should try to use their advantages fully in providing the farmers with information, the necessary services and guidance in regard to rural agricultural sideline industries.

12740

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NATIONAL

## ISSUES IN SEPARATION OF STATE FROM COMMUNE

Beijing LIAOWANG [OUTLOOK] in Chinese No 47, 19 Nov 84 p 21

[Article by Chen Yan [7115 7159]: "Problems of Separating the State from the Commune"]

[Text] The construction of grassroots political power in rural areas basically will be completed by the end of this year. According to statistics up to late September, 19 provinces, autonomous regions and municipalities across the nation have completed rural construction, setting up a total of 80,000 rural governments.

The replacement of the people's commune, which integrates the state with the commune, by the Class 1 rural government, under which the two are separated, is an important reform in the realm of the superstructure. The reform is undertaken in response to the development of the rural economy from a self-of semi-self-sufficient one into a commodity one and to the transition in agriculture from tradition to modern. Practice in recent years shows that many villages have taken the first steps towards ending the fusion of responsibilities among the party, the state and the commune. By delineating their respective jurisdictions and coordinating their work, the villages have vigorously promoted the development of rural work. Fengyang County, featured in this issue, is a vivid example.

A basic guiding idea behind separating the state from the commune is to inject a dose of economic dynamism into rural collectives and the individual economy in order to help expand the rural economy and speed up the four modernizations. The "Decisions" of the 3rd Plenary Session of the 12th party Central Committee point out: "To breathe life into our enterprises and the entire national economy, we must reform urgently in accordance with the principles of separating the state from the commune, streamlining administration and delegating authority." The rationale behind the functional separation of the party, the state and enterprises is to enable the party to strengthen its construction of rural party organizations, give full play to its members' role as models, intensify ideological and political work, and promote the construction of the socialist material and spiritual civilizations in rural areas. Another reason is that it will facilitate the construction of political power in the villages which can play an effective part in energizing the rural economy and ensuring its healthy growth. Yet a

third justification is that functional separation ensures that Class 1 rural (commune) economic organizations become economic entities with genuine operational autonomy and freedom to develop production on their own. Consequently, as rural political power becomes better established, the correct management of the relations between the party, the state and enterprises is very important.

Let us take a look at the relations between the rural government and Class 1 rural economic organizations. The function of a rural government is to exercise leadership over a wide range of political, economic, cultural and social constructions, in accordance with the Constitution and the local organic law. As the economic leader and manager for the village, it organizes the implementation of the economic plan, ensures that the national plan is carried out, fulfills the state's tax collection and purchasing duties, supervises economic units and individual households in seriously following the principles and policies of the party and the laws of the state, protects the legitimate economic rights and interests of all economic units and individual households, stamps out illegal economic activities, cracks down on economic crime, and so on. The various Class 1 rural economic organizations are not on an equal footing with the rural government but are economic entities or economic service organizations under the leadership of the rural government. Separating the state from the commune definitely does not mean taking away the leadership of the rural government over the economic organizations in the village. But it does mean that the rural government can no longer interfere in the substantive operational activities of these organizations by administrative fiat, as it did in the past. Similarly, Class 1 rural economic organizations must be enterprises, not administrative organs. Their relations with local economic cooperative organizations and other specialized economic cooperative organizations are no longer one of administrative affiliation and graduated transition, but one of equality and mutual benefit or coordinated guidance. In their interactions with local economic organizations, specialized economic cooperative organizations, and individual households, Class 1 rural economic organizations can use such tools as propaganda, consultation and the economic contract. But they cannot order them to follow a plan or force them to adopt a particular production measure.

It should be noted that although many localities have set up Class 1 rural economic organizations at the same time that they have established a rural government, the majority of such organizations are not independent economic entities but economic administrative organizations on a par with the rural government. In some cases, their relations with Class 1 village economic organizations may even remain one of administrative affiliation. Others have become de facto "second governments." If we do not correct this problem, it will be difficult to consolidate the achievements of the separation of the state and the commune.

Circular No 1, 1984, of the party Central Committee makes it clear that rural economic organizations should be established on the basis of the needs of production development and popular desire. They may vary in form and scale and there should be no pressure from the top to force every organization into a single mold. In economically advanced areas, there are usually more

commune-operated enterprises, many of them on a large scale. Their basic supply and marketing cooperatives, too, are fairly large operations with sound management. In addition, communes in these areas are involved in all kinds of state-operated enterprises and institutions. Under these circumstances, combining the enterprises and institutions to form economic organizations or making them the core of new organizations represent an effective approach towards pooling an area's financial resources and expertise to serve the development of its commodity production. Economically backward areas, on the other hand, may not be required to set up Class 1 rural economic organizations for the time being since most of them do not have basic supply and marketing cooperatives or commune-or brigade-run enterprises. In short, whether and how to set up economic organizations should be determined according to the local situation. There is no hard and fast rule.

A key link in strengthening rural basic political power is consolidating, improving and furthering the achievements of the separation of the state from the commune, particularly solving those workaday problems arising from the fusion of the party with the state and of the state with enterprises, and looking for other ways to enable economic organizations to play their role more effectively. Once these problems are solved, China's rural economic reform will accelerate even further.

12581

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NATIONAL

## RURAL SPECIALIZED HOUSEHOLDS, COMMODITY ECONOMY

Harbin BEIFANG LUNCONG [COLLECTED ESSAYS OF THE NORTH] in Chinese No 5,  
May 1984 pp 9-15

[Article by Liu Zhijun [0491 1807 6874]: "Specialized Households and the Rural Commodity Economy"]

[Text] There have been substantial developments in the forces of production, obvious improvements in the peasants' standard of living and new changes and breakthroughs in all areas of agriculture, forestry, animal husbandry, sideline production and fisheries since implementation of systems of contractual responsibility for output quotas across the vast rural areas of China. The most important of these is the appearance of "specialized households." They represent advanced forces of production in rural areas and are the foundation for developing the commodity economy in rural areas. They are a new form of the cooperative economy in the rural areas of China, and they are the support of the agricultural economy at present and the direction of development. This article will present some general viewpoints concerning specialized households and developing the commodity economy in the rural areas of China.

### I. The Commodity Economy Is an Inevitable Historical Stage of Human Society

Human societies may be divided into five socioeconomic forms according to their forces of production. If classified according to the economic forms of production and exchange, however, they also may be divided into three economic classes and three stages of economic development: the natural economy, the commodity economy and the planned economy. Marx discussed this question in his "Outline of a Critique of Political Economy (Draft)."

The socioeconomic form during the first stage is the natural economy form. It has the characteristics of "human forces of production that develop only within a small scope and in independent locations."<sup>1</sup> During that time, people had a basic natural division of labor but a less-developed social division of labor. The forces of production were low and the scale of production was narrow. There was very little exchange of products and commodities and no close economic relationships between people. The economic forms during this stage included primitive society, slave society and feudal society. Primitive society involved a purely natural economy. There was a considerable improvement in the forces of production in slave and feudal societies compared to

primitive societies, but they still were based on a natural division of labor and had an underdeveloped social division of labor. They were, therefore, societies with a natural economic form. Although the commodity economy had developed to a certain extent, self-sufficiency and the natural economy had the dominant position.

The socioeconomic form during the second stage was the commodity economy form. "The independence of man based on relationships of dependence for material existence is still an important social form of the second type; only in this social form do the usual social metabolism of social materials, common relationships, comprehensive needs and skills in many areas take shape."<sup>2</sup> It has the special characteristic of a fully-developed social division of labor, increased socialization of the forces of production and the achievement of material-material relationships in all of man's economic relationships which is achieved through commodity exchange. The commodity economy has developed to a high degree and has become a common socioeconomic form. This socioeconomic form is capitalist society. Capitalism involves the highest stage of development of the commodity economy and is a purely commodity economy and society. The commodity economy has led to rapid development of the forces of production under capitalism and has accelerated the progress of the socialization of capitalist production.

The socioeconomic form during the third stage is the planned economy. "The third stage still is a free entity. It develops on the foundation of individual freedom and on the basis of the fundamental social capabilities of individuals and the status of the social forces of production supplied by such individual."<sup>3</sup> It has the special characteristics of a social division of labor and socialization of the forces of production and involves even fuller development of society compared to the commodity economy. The economic relationships between people are no longer based on material-material relationships. The labor of individuals is no longer private labor but has directly become social labor. People no longer are subject to the blind allocation of materials since they instead are consciously allocated in a planned manner. "The non-governmental nature of social production gives way to socially planned regulation of production according to the needs of society as a whole and each of its members."<sup>4</sup> This socioeconomic form is socialist and communist society.

We can see from the analysis above that patterns of human socioeconomic activity involve a process of development from low to high levels and that they are also a process of human understanding of nature, transformation of nature and an inevitable movement from the realm of necessity to the realm of freedom. These three stages of forms of economic activity proceed in an orderly and step-by-step manner and are unavoidable. This also means that the economic development in any nation must undergo three historical stages and that the natural economy definitely cannot jump over the commodity economy and enter the planned economy. The reasons are that:

First, these three economic forms are inevitable outcomes of development of the forces of production and the social division of labor and are a form of social production and circulation activity itself. All forms of economic activity in any society are required by the development of the forces of



production themselves and are determined by the forces of production. The forces of production are a vested force and cannot be freely chosen by people. Marx said that "People cannot freely choose their own forces of production--this is their comprehensive historical foundation because any force of production is a vested force and a product of past activity."<sup>5</sup> The forces of production are forces already achieved by man and are the result of the actual capabilities of people. Since the forces of production cannot be freely chosen, then the form of economic activity determined by the forces of production also cannot be freely selected and is insurmountable. A self-sufficient or semi-self-sufficient natural economy that leaps over the commodity economy to enter the planned economy is unimaginable. Some nations in the world with backward forces of production, nations like China which do not have a developed capitalist commodity economy, have the conditions for a proletarian revolution and have achieved a successful revolution and can go around the capitalist stage in the area of socioeconomic systems. The forces of production, however, cannot bypass backward forces of production or economic and cultural backwardness to suddenly produce an economically developed nation with advanced forces of production, and they definitely cannot bypass the commodity economy as determined by the level of development of the forces of production. For this reason, some economically backward nations that have gained victory in the proletarian revolution must rapidly develop the forces of production and make great efforts to develop the commodity economy and resolve the historical problem of the completion or actual non-completion of capitalism and the necessity of completing socialism. Development of the commodity economy is an historical inevitability.

Second, these three economic forms involve an orderly and step-by-step process from lower to higher levels. A later stage can arrive only when the preceding stage has developed fully. The natural economy in primitive society that was based on a natural division of labor during the early period of human society was the result of the forces of production in primitive society and was adapted to the extremely low forces of production at that time. As the forces of production developed, the appearance of the social division of labor inevitably gave birth to a new economic form, commodity economy. The commodity economy itself also involves a process of emergence, development and disappearance. The commodity production that appeared in the later period of primitive society was a commodity economy in the process of formation. Slave and feudal societies had underdeveloped commodity economies. Capitalist society is a developed commodity economy and is the highest point in the commodity economy. There also are conditions for the disappearance of the commodity economy and it must go through a process of historical stages.

The appearance and development of a planned economy also has its historical conditions and processes. The planned economy must be established on the foundation of the commodity economy and is formed under the conditions of full development of the commodity economy. Marx said the planned economy "definitely is not a fundamental product of nature but is a fundamental product of history. To make this entity possible and to be capable of developing it to such a high degree and to such a comprehensive extent, there is a prerequisite of production based on exchange value."<sup>6</sup> We can classify the five types of economic systems in human society according to the three economic

forms based on this viewpoint: a purely natural economy--primitive society; the natural economy as the dominant factor, the commodity economy as a subsidiary factor--slave and feudal societies; a purely commodity economy--capitalist society; the planned economy as the dominant factor, the commodity economy as a subsidiary factor--socialist society; and a purely planned economy--communist society. The emergence, development and gradual transition of these three economic forms is a process of step-by-step formation and development and gradual transition. A natural economy definitely cannot develop directly into a planned economy and must go through a lengthy commodity economy before it can develop into a planned economy.

Third, apart from the basic condition of socialist ownership, there are two prerequisites for the appearance of a planned economy: highly-developed large-scale socialized production and a highly-developed commodity economy. A planned economy for an entire society is necessary only when there are highly-developed socialized forces of production, and the material conditions and managerial measures for a planned economy can be created only with modernized forces of production. A highly-developed commodity economy not only is a product of a modernized division of labor and socialized large-scale production, but also has the role of large-scale socialized production and provides a firm basis and level road for the planned economy. The magnificent school of the law of value can train talented people and staffs and thereby create the conditions for planned management.

China formerly was a semi-colonial, semi-feudal society, and the vast rural areas were in a state of a self-sufficient and semi-self-sufficient natural economy, meaning that the commodity economy was not developed even in cities. This determined that after the victory of the revolution in China, it was even more necessary to develop the commodity economy and change the backward situation of the self-sufficient and semi-self-sufficient economy in the vast rural areas of China. We were restricted by the Soviet model in the early stages, however, denied the relationship between commodities and money within the socialist state-run economy, and denied the long-term existence of the socialist commodity economy, and even confused the commodity economy with capitalism. This "leftist" ideology was eliminated after the "gang of four" was smashed and the fallacies of Lin Biao and the "gang of four" were criticized. In the relationship between the planned economy and the commodity economy, however, there still are people who feel that socialism means a planned economy and that the commodity economy cannot exist, much less be called a commodity economy society, because capitalism is a commodity economy society. In fact, the commodity economy is a form of the economic activities of production and exchange brought about by the social division of labor and the different owners of products. It is unrelated to a socioeconomic system or to capitalism, and can be said to have no relation to private ownership. The different owners may be private, or they may be public. Commodity exchange in the earliest primitive societies did not involve exchange between private owners but instead exchange between two primitive communes [communities]. Exchange between the two ownership systems under socialism and between different economic units within the same ownership system must involve commodity exchange. Therefore, if there is a social division of labor with different owners that has not achieved full social ownership and has not become a single owner, then there must be a commodity economy.

For this reason, I feel that socialist society is both a planned economy society and a commodity economy society, a society that integrates both. The overall trend is toward the dominance of the planned economy with a subsidiary role played by the commodity economy. It does involve a process of quantitative development and disappearance, however. During the early period of socialism or the stage of underdevelopment, and especially in a country like China, with a prerequisite of the guiding role of the planned economy, the commodity economy should serve as the foundation and should be developed rapidly to undertake and complete the historical tasks that should have been completed during the capitalist stage of history. The self-sufficient or semi-self-sufficient economy in rural areas should be transformed into a fairly large scale commodity economy. Traditional industries and handicraft industries in urban areas should be transformed into modernized commodity industries. This will promote the further division of labor, specialization and socialization in the urban and rural areas of China and in industry and agriculture, will cause all industrial and agricultural production in China to become large-scale socialized production, and will provide a firm foundation for the four modernizations and the socialist planned economy.

## II. Specialized Households Are the Inevitable Route for the Commodity Economy in the Rural Areas of China

The development of the commodity economy in China, especially the development of the commodity economy in the rural areas of China, is a long-term historical task and is an urgent requirement at present. Specialized households are an essential road and the best form for developing the commodity economy in the rural areas of China. Our discussion of this question should begin with the appearance of specialized households and can proceed in two areas. One aspect is that the appearance of specialized households is the result of the implementation of systems of contractual responsibility for output quotas in rural areas. Since the implementation of systems of contractual responsibility for output quotas that integrate unity and decentralization, the relaxation of the party's rural economic policies has liberated the forces of production and stabilized the ideology of the peasants. On the basis of universal implementation of systems of household administration with contractual responsibility for output quotas, specialized households with contractual responsibility have appeared in agriculture, forestry, animal husbandry, sideline production and fisheries. At the same time, because of the development of household-managed production and further implementation and fulfillment of the party's various economic policies, self-managing households specializing in one line of activity have appeared all over on the basis of expanding the original household cropping and sideline industries. In Heilongjiang Province, for example, the number of specialized households with contractual responsibility had reached 311,820 households and the number of self-managing specialized households had reached 222,550 households by the end of 1983, together equal to 14.9 percent of all peasant households in Heilongjiang. This illustrates fully the might of the party's policies and the effectiveness of the reforms in economic systems in China's agriculture. Another aspect is that the appearance of specialized households was an inevitable product of the development of the forces of production in rural areas. This is the internal cause, basis and foundation for the appearance of specialized households. The first aspect

[household responsibility system] was the external cause, prerequisite and condition for the appearance of specialized households. The two aspects are mutually restrictive and complementary. With a prerequisite of fully understanding the first aspect, we should further analyze specialized households as being an inevitable product of the development of the forces of production and as being extremely suited to the present level of development of the forces of production in China.

First, specialized households are a product of the development of agricultural production in China and are the result of improved labor productivity in agriculture. The development of specialized households, especially self-managing specialized households, has mainly gone through three stages. The first is the stage of common households, which involves household administration with contractual responsibility for output quotas. This is a common form in the rural areas of China. It is characterized by each household primarily growing grain along with breeding management like raising pigs, chickens, cattle or sheep, and by handicraft textiles and other sideline production. The production base is fairly weak, there is no specialized production, and the percentage of marketed products is very low. The second is the stage of key households. This stage is based on development of production and is most evident in grain, vegetables and industrial crops and in raising pigs, chickens, cattle and sheep and provides relatively high income. It involves a certain amount of specialized production and also has substantially raised the percentage of marketed products. The third is the stage of specialized households, which generally focus on one activity while simultaneously managing another activity or may involve specialized engagement in a particular production activity. The degree of specialization is rather high and the percentage of marketed products is generally over 60 percent. These three stages show that it basically is due to improvements in labor productivity.

The implementation of systems of contractual responsibility for output quotas changed the maladies of "eating out of the big common pot" in the past and gave decision-making rights to the peasants. There were insufficient unified and decentralized ration grain fields and labor power fields under household administration in normal families, which led to surplus labor power and labor time and inevitably required a movement into other production activities. This surplus labor power and labor time is a manifestation of improved labor productivity in agriculture. They are fundamental labor productivity for the appearance of specialized households. On the basis of the development of production, the incomes of most families under household administration grew and they have a certain amount of accumulation and scattered capital that can be used to purchase the means of production required by specialization such as purchases of dairy cattle, pig varieties, small tractors and so on. This was a material condition for the appearance of specialized households.

Second, specialized households are both a product and a form of the social division of labor. Self-sufficient or semi-self-sufficient economy existed in China's rural areas for a long time. The influences of "leftist" ideology also caused a very poor division of labor within agriculture, forestry, animal husbandry, sideline production and fisheries. Following the implementation of systems of household administration with contractual responsibility for

output quotas, most households still were characterized by a self-sufficient natural economy with no social division of labor. As production developed, the natural division of labor within the household gradually was replaced by a socialized specialized division of labor, and the focus or items of specialization of household administration gradually shifted to a predominance of sideline production. The former common households are planting and managing everything, and now have not only had a division of labor into the five lines [agriculture, forestry, animal husbandry, sideline production and fisheries], but also a substantial division of labor within a particular line. An example is specialized households engaged in breeding, who may manage either dairy cattle, pigs, sheep or chickens. Apart from having surplus labor power and capital, most of those who have become specialized households have a skilled artisan or are capable producers who understand agriculture and who have an education and understand science. Some of the specialized households in Limin Commune in Hulan County are good at raising dairy cattle, some know how to raise garlic seedlings in greenhouses, some know how to use plastic membrane ground cover to grow fragrant-flowered garlic, while others can raise tree seedlings or flowers and grasses, and so on. This is the condition for a specialized division of labor and is also the technical condition for the appearance of specialized households.

Specialized households are not only the product of a socialized specialized division of labor but are as well a form of existence and manifestation of the specialized division of labor in the rural areas of China at the present time. The appearance of the various categories of specialized households has brought about earthshaking changes in China's rural areas. This shows that the rural areas now are undergoing a transition from a self-sufficient and semi-self-sufficient economy to a commodity economy and a transition from self-sufficient production to specialized and socialized production. The specialized households formed as a result of the specialized division of labor are the best form of this inevitable transitional stage. Comrade Deng Xiaoping said that "the development of the diversified economy and the establishment of specialized groups or teams that followed have greatly developed the commodity economy in rural areas."<sup>7</sup> Common self-sufficient or semi-self-sufficient household administration must undergo a stage of specialized households with a specialized division of labor before they can make the transition to a large-scale commodity economy.

Third, specialized households are suited to the state of the forces of production in the rural areas of China. Moreover, they can accommodate new forces of production and are representative of advanced forces of production in rural areas at the present time. China is an underdeveloped socialist nation. The level of the forces of production is fairly low and there are many layers of forces of production, especially in the vast rural areas which still basically depend on manual labor. Agricultural production that is predominated by manual labor itself requires household administration of production on a fairly small scale. The household is a social unit in the rural areas of China. It is a unit of both production and life, and is easy to organize and manage. It can rationally use land and capital and allocate labor power according to family and social needs and in accordance with local conditions and individuals. It can fully inspire the members of the family to exploit all labor

potential since they are not subject to other conditions and utilize all time to engage in production; it can give play to the technical abilities of households for scientific farming in managing production, especially artisans, skilled planters and even techniques and skills handed down over the generations; and it can utilize old and waste materials, conserve on expenditures, lower production costs and exploit all potential for increasing output and conservation. The development of production will be limited if these households are restricted to the scope of normal management. Apart from meeting the various needs of the household, the percentage of marketed products is very low and cannot give play to the role of all types of labor power and those with technical skills. This made the appearance of a specialized division of labor and specialized management on the basis of normal household administration inevitable. Specialized households maintain the scale of household production suited to the level of production and also carry out a specialized division of labor and specialized management; they are suited to the current situation of the forces of production and can accommodate new forces of production; they are representative of advanced forces of production and promote continual development of the current forces of production.

Specialized households are a new thing and their appearance has changed the appearance of the rural areas of China and brought about profound changes in the agricultural economy. They play many roles, but their basic role and significance is that they promote the development of the social division of labor in rural areas, the development of specialization and socialization in agricultural production, and the development of the commodity economy in rural areas.

### III. Develop Specialized Households, Open Up the Commodity Economy in Rural Areas

If we wish to develop specialized households, we must have a correct understanding of the nature of specialized households. Everyone has a different understanding what specialized households are. Some classify them according to how many lines of activity they manage, and feel that managing a single line of activity or concentrating on one activity while handling others is a specialized household. Others classify them according to amount of income and feel that those with more income or even 10,000 yuan households are specialized households. Still others classify them according to the amount of labor power they invest in a particular line of activity. Others classify them according to the size of input-output results, and so on. I feel that all these classification standards have aspects that can be adopted but that they are not sufficiently comprehensive and lack a unified examination of the qualitative and quantitative aspects of specialized households.

Specialized households refer to household administrative units that are specially engaged in a form of commodity production or that concentrate on one activity. First, they must handle a single special activity or concentrate on a single activity while managing other activities. This is distinct from normal households and key households in terms of the social division of labor and managerial objectives in that specialized households derive their name from a specialized division of labor. Second, they are household administrative units based on single families, not economic associations, which



refers to organizational forms and scale. Third, they involve commodity production, not self-sufficient and semi-self-sufficient production, which refers to the goals of production and forms of products. Fourth, labor productivity is high, the percentage of marketed products is high and economic results are high, which concerns quantitative questions. It has been determined in Heilongjiang, for example, that the percentage of marketed products for specialized households usually is over 60 percent, that most raise over 100 chickens, more than 5 pigs, more than 2 cows, and so on, which concerns the percentage of marketed products. The first three points concern qualities, while the fourth concerns quantities, and the two groups are integrated. It can be seen that they have the particular characteristics of carrying out commodity production on the basis of a specialized division of labor and household administration.

Specialized households are an elementary form of the cooperative economy that has the qualities of socialist collective ownership. The qualities of socialist collective ownership are: one, in terms of ownership systems, the land and collective hillsides, forests, grasslands, surface water, large-scale hydroelectric power facilities and other primary means of production are under collective ownership. The specialized households with contractual responsibility only have allocation and utilization rights for specific periods, but cannot rent out, mortgage, discard or willingly transfer contractual responsibility over land and other means of production. Self-managing households also do not leave the land, especially those specialized households engaged in cropping and breeding. Most of them use land as a source of raw materials and feed. The collective ownership system for land, the primary means of production, determines the basic qualities of the system of collective ownership for specialized households because specialized households in agriculture, forestry, animal husbandry, sideline production and fisheries would find it very difficult to carry out production if they leave the land.

Second, in terms of distribution, they still conform to the principle of "turning over enough to satisfy the state, retaining enough for the collective and leaving enough for themselves" in carrying out distribution. Besides paying the agricultural tax to the state, they mainly turn over retained fees to the collective. The amount retained by the collective has the quality of collective ownership and forms collective accumulation funds, public welfare funds and other expenditures. Self-managing specialized households also turn over retained fees in different forms. The amounts turned over to the state and the collective are deducted before distribution according to labor, and they retain the remainder themselves as income for the labor of specialized households, which basically embodies the principle of distribution according to labor.

Third, from the managerial perspective, production by specialized households is carried out under guidance by unified state plans. State plans are passed on to specialized households by the collective and are not only guidance plans but also include some directive plans. Moreover, in the realm of circulation, state-run enterprises or collective enterprises sign contracts for production, sales and raw materials supplies directly with specialized households, which brings production by specialized households in all areas into the orbit of state plans.



A substantial portion of the means of production in specialized households is under individual ownership. First, this type of individual ownership is determined by the situation of the forces of production in China, and it is an inevitable outcome of decentralized administration based on household units. It also is a prerequisite for household administrative forms and gradually expands along with development of production by specialized households. Second, it is neither completely individual ownership nor independent ownership because land and other means of production are under collective ownership. The part under individual ownership is a requirement of the form of production management and production development, and its size and amount do not affect or change the nature of the cooperative economy of specialized households. Third, because there is some individual ownership within the specialized household economy, specialized households are, therefore, an elementary form of the cooperative economy.

To summarize the above, specialized households are economic entities based on collective ownership of land and other primary means of production in combination with individual ownership of some means of production. Since they integrate collective and individual ownership, they are a form of the cooperative economy. Looking at their overall economic qualities of collective ownership of the primary means of production and collective retention systems, they have the qualities of a collective ownership economy. In terms of retaining some means of production under individual ownership and looking at the households as production units, they are an elementary form or stage of the cooperative economy. Specialized households are, therefore, an elementary form of the cooperative economy under socialist collective ownership.

We certainly cannot use rigid models or guidelines in analyzing the qualities of specialized households. We should understand and explain them based on the objective realities of real life and fundamental Marxist theories. Lenin had two different viewpoints on the nature of the cooperative economy in "On the Grain Question" and "On the Cooperative System." Based on the actual situation in transformation of the small peasant economy in the Soviet Union, he changed his view that cooperatives were a form of state capitalism. He pointed out that "under the conditions of public ownership of the means of production and class victory by the proletariat over the bourgeoisie, the system of civilized cooperative workers is a socialist system."<sup>8</sup> The specialized households in the rural areas of China constitute just such a socialist cooperative economy, and this economic form is an inevitable stage in the transition to an even higher collective economy. The economic form of specialized households will inevitably spur the development of specialization, socialization and commercialization in China's rural economy. In this way, we can explore the transition from a self-sufficient and semi-self-sufficient economy to a commodity economy, develop the commodity economy in the rural areas of China and provide a solid foundation for the socialist planned economy. For this reason, specialized households as a cooperative economy with socialist collective ownership also are a form of the socialist economy that is particularly Chinese.

Some people fear that the development of specialized households will result in class polarization. This also is a matter of understanding the nature of

specialized households. Although specialized households own some means of production, they are not a means for exploiting others. Moreover, the labor conditions of specialized households makes it impossible to become capital. The state permits hiring out to a certain extent on the premise of promoting the development of production. It definitely does not permit or encourage capitalism. There are differences between hired workers under today's socialist conditions and the exploitation of wage labor under capitalist conditions. Some of the hired workers of specialized households are employees with contractual responsibilities for development. Others may be cooperative assistants while still others are temporary short-term hired workers, and so on. Generally speaking, the assistance receive fairly high wages and definitely do not constitute wage labor. The amount of exploitation is extremely small. The state has set specific limits on the number of hired workers, so specialized households cannot develop into capitalism. Moreover, there is the question of state guidance. The development of specialized households embodies the principle of "allowing some of the peasants to become wealthy first" and carry along all the peasant masses to wealth. Although normal households with rather poor production conditions are not equal to specialized households in terms of production scale and income, they will not become exploited poor households because of the guarantees they have for production and living conditions. The collective economy has distributed ration grain fields and labor power fields to every person and household and the state and collectives also provide specific considerations and assistance to poor households. They gradually will change their conditions as agricultural production develops, will make the transition to specialized households, and take the road to common wealth.

We should actively strive to assist the development of specialized households. There are three prominent concerns in Heilongjiang. The first is to open up circulation channels and do good social services. Specialized households have the special characteristic of commodity production, and there should be broad sales routes for the commodities they produce to achieve compensation for value and material exchange of the means of production. There now are problems, however, with selling sheep, milk and rabbits, and purchasing departments have willingly depressed grades and prices. There is a lack of compensation for means of production and improved livestock varieties, shortages of farm chemicals and fertilizers, and so on. The various social services adapted to the development of specialized households are very backward in comparison to the development of the commodity economy in rural areas. All activities and production lines should orient themselves toward rural areas and serve the development of the commodity economy in rural areas by gradually establishing a fairly complete social service system to promote even faster development of the rural commodity economy.

The second concern is to make great efforts to develop and stabilize specialized commodity grain households. Heilongjiang is China's commodity grain base area. The development of specialized commodity grain households is of very strategic importance not just for our province but for the entire country as well. Specialized commodity grain households have the characteristics of a high percentage of marketed products, high labor productivity and high economic results. In Heilongjiang's Suihua County, for example, specialized grain

households have a percentage of marketed products around 70 percent, yields of more than 600 jin per mu and expenditures of about 0.02 yuan for means of production per jin of grain. There were 7,000 households in the county that turned over 10,000 jin of grain, accounting for one-third of the county's requisition tasks. Specialized grain households are still in a state of spontaneous development, however. Specialized households are formed through unified distribution of ration grain fields and labor power fields to families with several members and much labor power. They do not have enough land to plant and there are many skilled farmers who are not planting enough. This has restricted the development of specialized grain households and thereby restricted the development of other specialized households. For this reason, we should "encourage the gradual transfer of land to skilled farmers" and allow skilled farmers to assume contractual responsibility for more land, and we should actively develop small family farms and provide them with assistance in capital, machinery, seeds, chemical fertilizers, farm chemicals and other areas to make a great effort to develop and stabilize specialized commodity grain households. Specialized grain households are the foundation of all other specialized households. Only by developing specialized commodity grain households can the percentage of marketed products for grain be raised and the most basic living requirements of the people be guaranteed. Only then can we promote rapid development of other specialized households and bring about major changes in the division of labor and activities and in the entire economic structure in the rural areas of China.

The third concern is further relaxation of policies and active encouragement of developmental contractual responsibility by specialized households. Heilongjiang covers a vast area and has abundant resources. There are a lot of barren hillsides and ridges, sandy and alkaline grasslands, low-lying marshes and waterlogged land, and saline-alkaline land that need to be controlled. There is a lot of surface water and barren plains and slopes that need to be reclaimed, and there are many forests, grasslands and rivers that should be managed. We should formulate concrete policies to deal with development in all these areas and encourage specialized households and specialized teams to assume contractual responsibility for controlling the mountains and rivers of the motherland so that rapid changes occur in the vast rural areas of Heilongjiang and change the appearance of the province.

The growth of specialized households and the development of the commodity economy in rural areas will inevitably bring new prosperity to the rural economy and cause major changes in the distribution of labor, economic structures, location of villages and towns, industry, commerce, politics, culture, education, science, technology and public health. Every industry and line of activity should adapt to meet this developing new situation and actively strive to assist and promote the development of specialized households and the commodity economy in rural areas and to welcome the new situation and new prosperity that has appeared in the rural areas. We certainly will take a developmental path for socialist agriculture that has a particularly Chinese character.

#### FOOTNOTES

1. Karl Marx, "Outline of a Critique of Political (Draft)," Vol 1, p 94.
2. Ibid.
3. Ibid.
4. "Collected Works of Marx and Engels," Vol 3, p 319.
5. Ibid, Vol 4, p 321.
6. Karl Marx, op. cit., p 99.
7. "Selected Writings of Deng Xiaoping," pp 275-276.
8. "Selected Works of Lenin," Vol 4, p 684.

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NATIONAL

#### QUESTIONS ON COUNTRYSIDE REFORM ANSWERED

Beijing XUEXI YU YANJIU [STUDY AND RESEARCH] in Chinese NO 11, 5 Nov 84 pp 24-25

[Article: "Questions on Countryside Reform Answered"]

[Text] I. Why Do We Say That a Shift from a Self-sufficient and Semi-self-sufficient Economy to Large-scale Commodity Production Is the Inevitable Process that Cannot Be Bypassed in the Development of Our Rural Socialist Economy?

This question can be answered from three aspects:

1. From the point of view of social development, a shift to large-scale commodity production is a stage that the development of social production must undergo.

Commodity production is production with exchange as its goal based on a given degree of development of the social productive forces and social division of labor. It emerged during the late period of primitive society. Along with man's three great divisions of labor--namely, the separation of animal husbandry from primitive agriculture, the separation of handicrafts from agriculture, and the appearance of the merchant class--commodity exchange derived further development. But, in the long historical period of the slave society and feudal society, commodity production and commodity exchange always existed as a supplement to the self-sufficient natural economy. By the time of the capitalist society, commodity production became universal. Capitalist commodity production was established on the basis of capitalist private ownership of the means of production, with the seizure of the workers' surplus value as its goal.

Ours is a socialist system established in a country where the commodity economy had not been very well developed. In terms of its overall social form, it has already bypassed the capitalist stage. Yet, commodity production, as a stage in the development of man's social production, cannot be bypassed. Marx pointed out: "The development of the form of social economy is a natural historical process." "It is a natural stage of development that can be neither skipped nor removed by edicts" ("Selected Works of Marx and Engels," Vol 2, pp 207, 208). Take our own country for example: Since the late 1950s, because of the "leftist" mistakes in our guiding ideology, we have several times attempted to negate commodity

production and equal-value exchange, leading to harsh consequences and bringing great harm to our socialist economy. History has already proved: to attempt to shift directly from a self-sufficient and semi-self-sufficient economy, or from a not very well developed commodity economy, to the communist commodity economy, is impossible; in between, there must be a stage of great development.

2. From the point of view of historical tasks, a shift to large-scale commodity production is the inevitable path toward the realization of agricultural modernization.

China's agricultural system has never cast off its self-sufficient and semi-self-sufficient form. And agricultural modernization cannot be realized on the basis of a self-sufficient and semi-self-sufficient economy. This is because the purpose of production in the case of a self-sufficient and semi-self-sufficient economy is merely to directly satisfy the needs of the producers themselves and the economic units to which they belong. It excludes any social division of labor or specialization, and limits the development of the production skills of the producers and the application of advanced sciences and technologies, thus resulting in a state of insulation between man and man and the psychology of following established conventions. Under such circumstances, it is impossible to provide society with more surplus commodities or to realize agricultural modernization.

The practical development of China's rural economy indicates that only by fully developing socialist commodity production can we promote a social division of labor and thereby enable the division of our agriculture, forestry, animal husbandry, sideline production and fishery to fully develop each such vocation, including every link in each process of production; promote the specialization and socialization of production; thereby greatly improving agricultural labor productivity and the commodity rate. Only by fully developing our socialist commodity production can we enable the value of our agricultural products to become realized through the market, and thereby provide even more capital for further development of production. And only by fully developing our socialist commodity production can we enable modern science and technology and methods of production to become widely applied in agriculture and to demonstrate their effects there. That is to say, the realization of the modernization of agriculture itself must be established on the basis of large-scale rural commodity production.

Meanwhile, when rural commodity production becomes developed, not only are new demands going to be made on the various trades in the cities, but also broad markets will be furnished for their development. Therefore, reform in the cities is bound to be promoted, which in turn will promote the development of the various trades and accelerate realization of the four modernizations.

3. From the point of view of production goals, a shift to large-scale commodity production is an important way of making our countryside well-to-do as quickly as possible.

To accomplish this is an important goal of socialist production. However, if the situation of self-sufficiency does not change and if the peasants remain in a state of "raising cows for tilling the fields, feeding pigs to accumulate fertilizer, planting crops for food, and planting cotton for clothing," then

the countryside can hardly become well-to-do. Only by developing our commodity production can we tap our abundant labor resources and release a portion of the peasantry from tilling the land in order to engage in service trades, commerce, processing industries, transportation, and so on, and thereby change the situation in which our 800 million peasants all resort merely to feeding themselves; only thus can we make use of our rich resources, turn such resources into products and turn such products again into commodities, and thereby increase our income, make our countryside prosperous and develop further; only thus can we enable our countryside to have culture, to be good at management, to have special skills, and to enable our peasants with timely information to gain an opportunity to demonstrate their talents and become well-to-do and thereby spur on more peasants to embark upon the road of becoming well-to-do. In the past, we have artificially prevented our rural economy from shifting to commodity production and thereby tied our peasants to the soil; the result was that they could only all suffer poverty together. Nowadays, as we base ourselves on the laws of economic development, follow the desires of our hundreds of millions of peasants, and encourage and support commodity production, the result is bound to be knocking on the door of becoming well-to-do through labor in behalf of our hundreds of millions of peasants so that they can all march the road of becoming well-to-do together.

## II. What Is the Commodity Rate of Agricultural Products? What Characteristics Have Appeared in Our Current Rural Commodity Production?

In order to understand what the commodity rate is, we must first of all learn what is meant by commodity output. Commodity output is the portion of total rural production supplied to society after deductions for peasant consumption. Generally speaking, it is the quantity of agricultural and sideline products for sale. The ratio between the commodity output of agricultural products and the total output of all such products is called the commodity rate.

Since the Third Plenary Session of the 11th Party Central Committee, along with the general practice of the production responsibility system in our agriculture, rural commodity production has been developing vigorously, and the commodity output and commodity rate of our agricultural products have also increased considerably. In 1983, the total quantity of agricultural and sideline products and township- or commune-managed industrial products sold in the countryside amounted to 210.25 billion yuan throughout the country, a 1.2-fold increase over 1978. Each peasant, according to the rural population, sold on the average as much as 257.7 yuan of commodities, an increase of 135.1 yuan over 1978. The commodity rate of agricultural products was raised from the 51 percent of 1978 to 59.2 percent.

Today, the pace of development of rural commodity production is being accelerated, exhibiting the following characteristics:

One is the emergence of a large contingent of specialized households engaged in commodity production; they have become the core force for rural commodity production. According to statistics compiled by the departments involved, by the end of 1983 there were 24.83 million specialized households in the countryside, encompassing 13.6 percent of the rural population. Among them, about two-thirds were engaged in planting and breeding enterprises. Also,



along with the development of various specialized households, there emerged throughout the country a contingent of specialized villeges and specialized townships engaged mainly in a specific production activity. This served even more forcefully to promote commodity production and commodity exchange in the countryside.

A second is that the rural economic structure started to shift from uniformity to diversity, with a new situation thus emerging in which agriculture, forestry, animal husbandry, sideline production and fishery gained overall development, and agriculture, industry and commerce became comprehensively managed. According to a 1983 survey of 2,032 townships (communes) of the country's 575 counties, among the countryside's laborers the ratio of those engaged in diversified management already increased to 9.6 percent. More and more peasants were "staying away from their land but not from their village," so that rural and township enterprises and family handicrafts gained rapid development; small market towns were just beginning to emerge, and the momentum for commodity production in the countryside was becoming greater and greater.

A third is that the realm of circulation has been developing multiple channels, and peasants engaged in commerce were becoming an important supplementary force in state-run commerce and supply and marketing cooperatives. In the past few years, large contingents of peasants have entered the realm of circulation. A multiplicity of state-run, collective and individual forms of economy have all begun to develop; thus the extent of purchase and sales in the countryside continued to expand, and by the end of 1983, the rural market towns throughout the country already increased to 43,515. In certain regions there emerged specialized markets and wholesale markets. Business in such markets amounted to 32.8 billion yuan, an increase of 14.5 billion yuan over 1979.

A fourth is that enterprises providing services to commodity production in the countryside have been on the rise, and various forms of development companies are becoming established one after another. During the last few years, in response to the requirements of rural commodity production pre-production, in-production and post-production social service enterprises providing specialized households, unions, and township enterprises with commercial information, science and technology, storage and processing, and communications and transportation facilities have begun to emerge. They have vigorously promoted the development of rural production and have carried it a great step forward in the direction of specialization and socialization.

From the above characteristics, we can see that rural commodity production is developing at an unprecedented scale, and our self-sufficient and semi-self-sufficient economy is going to be gradually replaced by it.

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NATIONAL

AGRICULTURAL KNOWLEDGE-INTENSIVE ENTERPRISES ADVOCATED

Beijing NONGCUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 1, 5 Jan 85 pp 37-39

[Article by Qian Xuesen [6929 1331 2773]: "Create the Agricultural Type of Knowledge-Intensive Enterprises"]

[Text] In recent years, scientific and technological workers in China have, in their study of new concepts and new methods for agricultural development, advanced the so-called "cross-type" [shizi xing 0577 1316 0992] agriculture or "flying-bird-type" [feiniaoying xing 7378 7680 0992] agriculture integrating agriculture, industry and commerce. That is to say, they wish to change the agriculture that consists of simple planting into a system of comprehensive production. We shall also see that in the 21st century China will undertake knowledge-intensive agriculture that will lead to a change in the productive systems and productive organizations throughout the country.

Agricultural enterprises are those that rely on the sun as the direct source of energy for production and the photosynthetic function of plants on the surface of the earth. Sunshine is a powerful source of energy. In China there are 120 to 200 kilocalories of energy per square centimeter per year; that is, the energy of sunshine received per mu of land each year is equivalent to 114 to 190 tons of standard coal! Agricultural enterprises in China thus benefit from this kind of environmental advantage.

Of course, we are not saying here that such sunshine can all be utilized by the plants and become synthetic products. Because of limitations in the supply of water and fertilizers, limitations in density of carbon dioxide in the atmosphere required by photosynthesis, and limitations in the capabilities of the plants themselves, only a small part of the aforesaid tremendous solar energy can be converted into botanical products. This ratio is less than 1 percent, and often limited to .1 percent. Where then did the more than 99 percent of solar energy go? It did not leave the earth right away, but was released into the air to raise the temperature of the atmosphere, to evaporate moisture, and to produce wind and rain. Hence, solar energy is converted on earth also into wind power and sources of hydraulic power; this is naturally very important because the agricultural enterprises discussed here also must take advantage of wind power and hydraulic power in order to produce electricity for use in production.

As solar energy is converted into plant products, man can by no means entirely make use of it directly. Take food crops as an example: the grain derived therefrom makes up less than half of the actual plant; the other 60 percent consists merely of stalks. Today, there is a shortage of fuel in the countryside, where stalks are often burned as fuel and not converted to fertilizers. The organic matter thus is not returned to the field, and this constitutes a great loss.

In order to increase agricultural returns we must not only make full use of the ultimate products of the plants' photosynthesis but also intervene in the intermediate links to utilize their useful products. For example, stalks, tree leaves and grass can be processed into synthetic animal feed for the development of cows, sheep and rabbits or the feeding of chickens, ducks and geese. Cattle dung can be used to fertilize mushrooms and raise earthworms. Mushrooms can be used as food, and earthworms make a high protein additive in animal feed, and their refuse may also be processed into fish feed or sent to the methane pit to generate fuel gas. Only the mud in the fish pond and residue from the methane pit are ultimately used as fertilizers.

This way, while we fully utilize organic resources, including plants, animals and microbes on the one hand, on the other we can also make use of all modern science and technology, including results of our new, technical revolution. Not only is our technology modernized, but our production processes have also become tightly organized and coordinated, resulting in streamlined production. This is precisely what constitutes the agricultural type of knowledge-intensive enterprises. We should also notice that only the production process of plants that make direct use of solar energy need to occupy any surface of the earth. Other production operations rely upon the production processes of animals and germs or take place in the factories, which may be in many-storied structures or underground, and hence occupy little surface area or none at all. This enables us to make the most effective use of our land area. This is also the further development of the so-called concept of "courtyard economy."

The agricultural type of knowledge-intensive enterprises may be divided into the following five categories:

(1) Farming enterprises: Farming enterprises are concerned mainly with crop cultivation, with foodgrain and cash crops as their foundation. This is the cropland type of agriculture, which takes up about 1.6 billion mu of farming area in China. These are the agricultural type of enterprises receiving the greatest attention today, occupying the majority of the labor force and yielding the highest output values. They include not just planting but also forestry, animal husbandry that raises domestic fowl, fish, and the breeding of bees, earthworms and other worm-raising enterprises, plus the fungus industries, the microbe (methane, single-cell protein) enterprises, and of course, sideline and factory industries. It is therefore an agricultural system of enterprises that encompasses 10 categories of undertakings simultaneously. In order to thoroughly study and develop of this type of enterprise system, we must consider establishing experimental areas in different regions and under different natural conditions so as to concentrate

scientific and technological forces, create experiences, and open up paths. How large should an experimental area be? On this we must look a little farther: We must take the path of simultaneous development of urban and rural areas and coordinated development of cities and market towns. The bases of the aforesaid agricultural enterprises are the market towns, each with a population of about 100,000. Of these, only a small number are engaged in planting enterprises, although they also live in these towns and go out early in the morning and return in the late evening every day. Other production, advanced processing of foodgrains and food industries are all centered in the market towns, which are production as well as cultural and educational centers. They have multi-storied buildings and take up less land. In the future, buildings may even develop underground, where they are warm in winter and cool in summer and take up no surface area at all. Above ground are gardens and forests where people can stroll and relax.

(2) Forest Enterprises. Forestry is also a category of the agricultural type of knowledge-intensive enterprises. If the wilderness fit for afforestation is included, the forestry area of our country may amount to as much as 4.5 billion mu and more, which is three times that of agriculture. Today the forestry situation lags behind that of agriculture; efforts are still being made to explore the most suitable production relations. Guizhou Province has come up with joint-household contracting of large-area and trans-regional afforestation; this may be a good beginning.

Once the issues of production relations and production systems are resolved, we must proceed to the problems of production organization and techniques of forest enterprises. In this regard, if we are going to develop the production of woody-plant edible oils and industrial oils, we may refer to certain methods of this agricultural type of enterprises. The forest enterprises naturally also include the raising of animals, fowl, worms, fungi and microbes and the production of sideline and industrial enterprises, as well as some farm planting and fish pond breeding enterprises.

These forest enterprises are characterized by the processing of timber and the utilization of tree branches. The present practice of transporting timber out of the forest area to the cities for processing merits consideration. Is it possible for us to process timber into semi-finished products or finished products in the forest area itself? Is it possible to transport out paper directly from the forest area? With the utilization of tree branches added, we may well indulge in making animal feed and develop animal husbandry; animal refuse may again be used to raise earthworms and others to derive protein additive for the animal feed. The large quantity of released organic waste water may further be used to produce methane as fuel for the forest enterprises. This way, our forest enterprises will be able to provide large quantities of edible oils, industrial oils, wood products, paper, meat, milk products, etc., and also supply each year an amount of methane equivalent to the energy of 100 million tons of standard coal.

(3) Grass Enterprises. Enterprises run in the prairie may be called grass enterprises. The area of our prairie, if the recoverable sand-buried areas are included, measures altogether 4.3 billion mu, almost three times the size of the farming areas. But our prairie management and utilization are rather

rudimentary and their results are minimal. In the Nei Monggol Autonomous Region there are about 1.3 billion mu of prairie; in the 37 years from 1947 to the middle of 1983, the cumulative value of animal husbandry there amounted to only slightly more than 10 billion yuan, convertible into merely slightly more than 0.2 yuan per mu per year, a figure much smaller than the yearly per-mu output value of our farming land. But after we make use of science and technology to turn our grass enterprises into knowledge-intensive enterprises, this situation can well be changed.

Making use of science and technology to develop our grass enterprises must also begin with utilizing sunshine as an energy source. We must plant grass carefully, and let our prairie grow large quantities of fine-quality and high-nutrition grazing grass. Here involved are the tasks of importing the right kind of seeds and raising fine grass seeds. There is also the task of controlling pests such as rhodents. To deal with rhodents, it is best to use pesticides as sparingly as possible so as to guard against poisoning the cattle; we should use their natural enemies--owls, yellow weasels, etc. After scientific transformation, the per-mu output of our prairie can be raised much more than it is today, with a possible production of several hundred jin of grass per mu per year.

Among animal products, the milk and animals for the slaughter house must be transported to the factories for further processing and comprehensive utilization. And here certain products such as dried blood and bone residues must again be returned to the scattered feed plants as additives.

According to the conceptualization of multiple utilizations above, the waste matter from feed processing and the refuse of animals at the breeding experimental points must also be fully utilized in planting fungi, raising earthworms and fish, making methane, etc. When there is enough methane, it may also be used to run cars and tractors and generate power. The residents, numbering about several hundred at such production and settlement points, would make up the production bases of our grass enterprises; the extent of prairie managed by them would measure from 10-odd to 20 kilometers. Since these are settlements of several hundred residents, they may have elementary schools and junior middle schools. There would be power stations producing by methane and/or wind power up to 1,000 kilowatts of power, and there would be supplies of water for production and daily consumption; television and broadcasting programs may be received from communications satellites. These would be the modern new villages of our grass enterprises.

(4) Oceanic Enterprises. Oceanic enterprises are enterprises that make use of the ocean beaches. Our shores consist of some 7 billion mu in area, of which the shallow beaches make up 2.2 billion mu; this is certainly a gigantic resource. Here we mainly depend on the organisms naturally grown in the ocean and use them as feed to engage ourselves in raising and catching our fish, shrimps, clams, etc. This category resembles cattle-raising in the prairie. For long periods of time, we knew only how to catch them but not how to raise them, just like people in the primitive society prior to the emergence of early animal husbandry, who simply hunted for their livelihood! From this, we also know that the path of building the knowledge-intensive type of oceanic enterprises is simply to convert "hunting" into cattle-raising!

Previously we seemed to always think that the oceanic enterprises constituted no self-sustained system of production but were merely a part of fishing or farming; no sufficient attention was ever given. Recently there have been signs of change. Rongcheng County in Shandong Province has discovered that it has more than 300 kilometers of coastline and 500,000 mu of shallow beaches, with water products making up one-third of that of Shandong Province as a whole. Thus the importance of oceanic production probably should be given recognition; they want to build a batch of port townships mainly engaged in water products processing and breeding. In these townships there would be water products processing plants, auxiliary food plants, plastics plants, valve factories, fishing boats construction and repair plants and shrimp breeding farms, etc., which would constitute an enterprise system. This is a great leap in perception!

With such correct perception, we can then explore measures for building our oceanic enterprises. One aspect is to reform our offshore fishing. Our offshores consist of 2.2 billion mu in area; they are 5.6 times the size of those of Japan, but in 1982 the output of all our oceanic fishing enterprises was only 46 percent of that of Japan's offshore fishing. One technical measure to change this backward situation is to sink artificial fish reefs to create a good environment for the fish. This step alone could increase our offshore fishing output by more than a dozen times to reach an annual amount of 50 million tons. Further, we should also change our oceanic fishing into "oceanic grazing." That is, we should utilize the fact that certain fish have the habit of returning to fresh water to lay their eggs and hatch them in order to create the condition for the fry to grow in our rivers and harbors; as the young fish enter the ocean by themselves and return as adult fish also by themselves, it is simply the best way to catch them. China's high class edible fish such as the chum salmon and hilsa herring both fall in this category.

The category of oceanic enterprises is naturally far larger than what is spoken of above; there are also kelp and seaweed raising enterprises and the breeding of of shrimp and clams. When there are enough sea products, we can process and re-process them and work on comprehensive utilization.

(5) Sand Enterprises. The last category of the agricultural type of knowledge-intensive enterprises is the "sand enterprises" that make use of deserts, the Gobi in particular. The deserts and the Gobi in China measure about 1.6 billion mu in area, as large as our farming area. In the deserts and the Gobi it is not a case of growing nothing; those areas too dry to grow anything are very few; most desert areas still have some rainfall and some plant growth; some areas even grow quite a few small perennials. There are also small areas within the arid zones which have turned into deserts, but these are places where irrigation can be considered.

Today, what people can do with deserts and the Gobi is limited to gathering the herbs that are especially grown there; but they still only gather, not plant. As a sand enterprise, this should be changed into both gathering and planting so as to increase production. Today there also people in foreign countries trying to study the planting of "petroleum crops" [shiyou zhiwu 4258

3111 2784 3670] to harvest and then refine products resembling crude oil therefrom. This way, deserts and the Gobi would become our boundless surface oil fields, and they would really constitute a great development of our sand enterprises.

The five categories discussed above are called the agricultural type of knowledge-intensive enterprises. In a certain category a certain concrete production activity may also be similar to the production activity of another category; so there is some overlapping. For example, in the farming enterprises there may be also forest management, and in forest enterprises there may likewise be planting enterprises production, and it is in the hilly areas that such overlapping may appear. But the types of enterprises can be still clearly distinguished; that is, these types can be classified according to their respective main production activity, because it determines the structure of an entire enterprise.

Since it is knowledge-intensive enterprises we are talking about, we naturally need to make full use of the natural sciences, social sciences, engineering techniques, and all applicable knowledge to organize and run them. One big issue is the overall investigation and study of our organic resources, because the agricultural type of enterprises depend on organisms for the completion of their production tasks. Another big issue is biological engineering techniques pertaining to the new technical revolution, such as cell engineering, enzyme engineering, heredity engineering, and so on, in order to serve the agricultural type of enterprises, that is, the great improvement in the results of organic production and the organic functions useful to production, including the creation of new organisms.

The building of the agricultural type of enterprises is not just a question of these enterprises themselves; our industrial and mining enterprises must catch up with them, our raw materials must also catch up with them. There are also communications and transportation enterprises, information and intelligence enterprises, educational and cultural enterprises, as well as commodity circulation enterprises, urban and rural construction and life services, and so on. Hence our production relations will also undergo considerable readjustment. As for the organization of our productive forces, the change will be even greater, constituting a great transformation. To build the five categories of knowledge-intensive enterprises, where will the capital come from? How should international monetary capital be utilized? These are also issues for us to study. The change in the production systems and economic structures to be induced by the building of the agricultural type of knowledge-intensive enterprises is a new industrial revolution that will appear in socialist China in the 21st century; it is a serious issue that merits our profound reflection.

9255

CSO: 4007/206



NATIONAL

## MEASURES TO ENSURE PEASANT ENTHUSIASM IMPLEMENTED

Beijing ZHONGGUO NONGMIN BAO in Chinese 16 Dec 84 pp 1, 2

[Article by Wuji County Party Committee, Hebei Province: "Six Measures To Ensure Peasant Farming Enthusiasm: (1) Stress Firmly the Extension of Land Contracting and the Issue of Land Certificates; (2) Strengthen Social Services for Agricultural Production; (3) Promote Procurement of Agricultural Products; (4) Handle 'Transformation' of Food Grain; (5) Conscientiously Implement Pricing Policy, (6) Forbid Disorderly Distribution to Peasants"]

[Text] Since the Third Plenum of the 11th CPC Central Committee and in light of the implementation of the party's various economic policies in rural areas, peasant enthusiasm in farming has risen to an unprecedented height, and agricultural production has developed greatly. However, due to the fact that the length of the former land contract is short, the peasants worry about changes. Particularly since this year the prices of some raw materials have gone up, and the prices of some agricultural byproducts have dropped. Ever since this spring, it has been reflected that some peasants are unwilling to invest in the land and that they are distracted from farming. In order to pinpoint such trends and problems, we have now adopted the following measures:

### I. Stress Firmly the Extension of Land Contracting and the Issue of Land Certificates

After Document No 1 of the CPC had been made known to the lower levels, we summoned a three-level cadre meeting in time, transmitting and studying the spirit of the central government conscientiously. In addition, we selected and transferred over 300 cadres to form a Document No 1 propaganda troop. They went to the villages and households to explain and publicize the important decision that "the land contracting period, in general, should be longer than 15 years." The county government centralized and printed the "land contracting certificate," thus stressing the work on the signing and issuing of certificates. Until 5 April, among the 2,076 production brigades of the county with the exception of the 55 production brigades that have to wait for the renewal of the certificates after the expiration of the original contracts, the rest of the 2,021 production brigades have issued land contracting certificates to the members, making up 97.4 percent of the total number of brigades. Overall, the extension period of land contracting is over 15 years; some of

them are extended to 20 years. Based upon the Central Committee's principle of an "overall stabilization with only little readjustments," stress is also laid on the readjustment of scattered plots. At present after the expiration, 961 production brigades of the county have readjusted the scattered plots, facilitating the farming activity of the peasants. This act has effectively stabilized the relation of land contracting, has extinguished the peasants' psychological worries about changes and has enabled the mass of peasants to embrace the ideology of long-term operation.

## II. Strengthen the Social Services for Agricultural Production

The following four items are stressed:

1. Watering Services: 15 villages of the county have established watering service companies; 20 villages have carried out the methods of small team leadership and machinery and labor contracting; 41 villages have implemented the centralization of wells, pumps, pipes and belts and the responsibility system of machinery and labor contracting. At the same time, many individual watering service households were trained.

2. Agricultural Machinery Services: The agricultural machinery service companies were established in 19 villages of the county, and 137 villages, during peak seasons on the farms, organized individual agricultural machinery services. Arrangements and rates for sowing the members' farmland were centralized and standardized. The village of Beisu organized a service bureau that employed machines, livestock and labor. In that service bureau, there were 8 large and intermediate tractors, 121 small tractors, 64 seed drills, 181 draft animals and 355 farm laborers. It rendered services to 1,192 households that lacked labor, livestock and agricultural machinery; it harvested 312 mu of land in the fall, spread waste covering 168 mu of land, prepared 1,512 mu of soil, plowed 23,900 mu and sowed 15,800 mu by machines. In addition, a number of individual agricultural machinery service households were trained. There were three households--Donghoufang Village, Luozhuang Village and Zhangqingfa--that possessed the whole set of farming harvester and thresher and farm implements. They signed an operation contract with 29 peasant households of their team to work on 147 mu of farmland; they were responsible for 8 items of operation, e.g., watering, farming, thrashing, harvesting, farm transport, etc. The fee was 10 yuan per mu, and the fee will remain unchanged for 5 years.

3. Agricultural Technology Services: Agricultural technology comprehensive service companies were set up in 20 villages and towns of the county, providing the peasants with new technology, promoting new achievements in agricultural technology, being responsible for pest inspection and reports, preparing pesticides and supplying peasants with improved varieties. After the founding of the agricultural technology service company in Xidongmen Village, the agricultural technology was passed on more than 230 times, group consultations were answered and explained over 6,470 times, talks and training classes on technology were held several times and 50,000 jin of improved varieties and 4,000 jin of pesticides were supplied to the members. They



prepared the directions for producing a pesticide that controlled and eliminated the cotton borer. The preventive and control effect reached over 80 percent. It was sold in 2 counties, 12 townships, 54 villages, covering a preventive and control area of 45,000 mu. They also published 19 issues of a small newspaper called ZHUANGJIA HUA [FARM MESSAGE], with a distribution of over 5,700 copies.

4. The Supply and Marketing Service of Production Materials: On the original basis of the operation and marketing of production materials run by the supply and marketing cooperatives in 20 villages and towns, village cooperatives have been set up in 21 villages, which are relatively far away from the supply and marketing cooperatives. Since this year, these village cooperatives have sold 1.035 tons of chemical fertilizers, 112 tons of diesel oil and 13 tons of pesticides to the members, solving the peasants' problem of traveling for long distances to purchase production materials and having to wait in long lines.

### III. Promote Procurement of Agricultural Products

The resolution for achieving the quotas of grain and cotton procurements should be stressed in the major measures employed to mobilize and safeguard the peasants' farming enthusiasm. Since this year, two new grain stations have been constructed in the county and four grain stations have been expanded, increasing the capacity of over 15 million jin, and the problem of "achieving the quota of grain procurements" has been almost solved. In order to solve the problem of "achieving the quota of cotton procurements," we have adopted five measures: 1) Publicity work should be promoted; 2,300 copies of publicity materials have been printed and distributed. The procurement policy of cotton was publicized, announcing that we will accept whatever amount the peasants have grown. 2) Leadership should be strengthened. The head of the county cooperative is the one in charge. A small leading group formed by three to five persons is responsible for cotton procurement under all primary cooperatives. 3) The procurement and processing network outlets should be increased, and the processing capability should be enhanced. This year, 300,000 yuan was invested in the newly established outlets for cotton procurement and processing in the villages of Donghou and Tanxia. The amount of procurements reached over 6 million jin, occupying about 40 percent of the estimated annual total output, and the processing amount reached 4 million jin. 4) Stations should be expanded and storehouses should be built, adding to the storage facilities; 500,000 yuan was invested in 20 primary cooperatives for the construction of 6,660 M<sup>2</sup> of storehouses and 3,340 M<sup>2</sup> of buttresses [duo 1000]. The total capacity was 20 million jin. In addition to the original storage facilities, the storage capacity of the county now reached over 23 million jin. 5) Training classes for cotton-picking techniques should be run. Training classes for cotton-picking, accounting and weighing were run four times by the county and 110 technicians were trained. The number of technicians trained per village averaged 5.5 persons; the increase was 2.5 persons compared with last year.

#### IV. Handle "Transformation" of Food Grain

In recent years with the successive increase in the output of food grains, the yield of food grain per mu in the county averaged 1,348 jin last year, an increase of 8.9 percent over 1982. The average food grain per person was 787 jin, an increase of 20.2 percent over 1982. The mass of peasants, faced with no storage areas and the need for spending money, are very eager to find outlets for their food grain. Due to inefficient storage and transportation, "surplus" phenomenon occurred. We regarded it as a temporary surplus during the transition of switching from the old rural industrial structure to the new. It was a low-level surplus which did not mean that the output of our food grain had increased, but was a result of the mishandling of transformation and comprehensive utilization. Therefore, we have to put great stress on grain transformation work and comprehensive utilization.

First, it is necessary to run the starch factories efficiently. Our county's annual output of corn was around 170 million jin. In order to handle corn transformation well, 400,000 yuan was invested in the construction of a starch factory at Nanma with an annual output of 1,500 tons. The annual consumption of corn was 5.25 million jin.

Second, the development of food-processing and service industries should be diversified in various aspects, forms and structure. At present, there are 724 food processing and service factories, shops, stations and outlets operated by our county. The annual amount of grain consumed by the processing industry was 12 million jin. At the same time, the technical superiority of commune members and the masses has been fully mobilized, and the traditional grain processing industry is largely developed. For example, the annual corn output of Dongyanger Village was over 500,000 jin. The members of this village have inherited the traditional industry of boiling sugar syrup. At present, 20 sugar syrup workshops have been set up, and each workshop processed 30,000 jin of corn annually, thus consuming all the corn. The income of each sugar syrup workshop was 2,500 yuan; the amount of baggasse was enough to feed about 15 hogs, adding 2,000 yuan to its income, thus the total income amounted to over 4,000 yuan.

Third, it is necessary to go in for a large-scale feed-processing industry and to develop animal husbandry vigorously. On the basis of the original feed-processing factory with an annual production of 1,500 tons of feedstuff, we invested 150,000 yuan for the construction of a compound feed-processing factory. Its annual output capacity was 750 tons, and an expansion of 1,500 tons was planned. These two processing factories could transform about 25 million jin of food grain. This year, 217 outlets of individual and joint-operated feed-processing factories have been established; the annual amount processed was 35,885 tons. The development of the feed-processing industry has promoted the development of animal husbandry. By the end of September, there were 18,600 cattle, horses, mules and donkeys reared in this county; compared with that during the same period last year, the increase was 3,012, compared with that during the beginning of the year, the increase was 2,113.

The respective number of mutton goat and milch goat reared were 25,700 and 168; compared with that within the same period last year, the increase was 2,100. The number of chickens reared was 737,000; compared with that within the same period last year, the increase was 100,000, and compared with that at the beginning of the year; the increase was 8,000. The number of hogs reared was 106,500; compared with that within the same period last year, the increase was 9,000, and compared with that in the beginning of the year, the increase was over 6,000.

#### V. Conscientiously Implement Pricing Policy

Several times this year, we have organized a force to carry out investigations and random surveys on the situation under the implementation of the pricing of materials aiding agriculture. Last March, since the readjustment made on the price of diesel oil by the State Council, 20 supply marketing cooperatives in the country sold 85,655 kg of diesel oil at the wrong price, thus collecting an extra of 6,781.99 yuan from the members and involving over 5,000 peasant households. After the discovery of such a mistake, a work group was formed by the committee for inspecting discipline, the rural economy guidance department, the commerce department, the supply and marketing department, etc., right away. They refunded the households the money one by one. According to the sales copies, the sum that had been mistakenly collected was fully refunded to the peasants. The county committee for inspecting discipline also made an announcement to the county, criticizing those in charge seriously, thus protecting the interests of the peasants.

#### VI. Forbid Disorderly Distribution to Peasants

Three major points have to be stressed:

First, it is necessary to strictly administer the items and standards for withholding allowances. In the past, quite a few villages had included family planning awards, people's militia training expenses, the meeting expenses of party members and peasants and the allowances of telephone operators, credit men, electricians, physicians, the "four technicians," movie projectionists, etc. as withholding allowance, thus adding to the peasants' burden. This year, we have canceled these allowances and limited withholding to three items; accumulation fund, public welfare fund and management expenses. There is no allowance for party members holding meetings, which is treated as volunteer work. The allowances for the "four technicians," physicians, electricians, credit men, movie projectionists, etc. come from their fees. The maximum allowed for the three withholding items is restricted to 5 percent of the net agricultural income of the preceding year.

Second, nonproductive members should be eliminated. Villages no longer keep professional security troop units, telephone operators, on-duty people's militia, partrols, broadcasters, reporters, etc., thus eliminating over 1,400 nonproductive members.

Third, the number of rural cadres is cut. We have stipulated the number of rural cadres eligible for a permanent subsidy: fewer than 3 persons are allowed in a village with a population of less than 500 people; for a village with a population of 500 to 1,000, the number should not exceed 4 persons; for a village with a population of 1,000 to 1,500, the number should not exceed 5 persons; for a village with a population of 1,500 to 2,000, the number should not exceed 6 persons; for a village with a population of over 2,000, the number should not exceed 7 persons. Last May, we eliminated the rural cadres in four villages--Guozhuang Village, Donghou, Louxia and Zhen Village--launching a pilot test to relieve the peasants' burden. For example, in Zhen Village, the total number of cadres eligible for a fixed subsidy dropped from 101 to 41 persons, thus reducing 59.4 percent and eliminating 65 [sic] persons who were eligible for other subsidies. In the past, village subsidies amounted to 33,534 yuan: the average amount of subsidy per peasant household, per person and per mu of farmland was 13.54, 3.32 and 2.87 yuan, respectively. After reducing the staff, the amount of subsidy was reduced to 13,608 yuan, decreasing 53.5 percent. The average amount reduced per peasant household, per person and per mu of farmland were 8.04, 1.35 and 1.16 yuan, respectively. In addition, we have eliminated 2,492 cadres of the production brigade in the county. With the implementation of joint-brigade accountants, the number of accountants in the production brigades dropped from 2,076 to 505.

Due to the emphasis on the three points mentioned above, the county's total withholding allowance amounted 4,513,000 yuan this year--including 730,000 yuan for educational expenses--making up 2.9 percent of the net income of the preceding year. The average amount per person was 11.88 yuan, and the average amount per mu of land was 8.5 yuan. There were 135 villages in which the allowance was below 10 yuan; there were 55 villages in which it ranged from 11 to 15 yuan; there were 11 villages in which it ranged from 16 to 20 yuan. Six villages drew their expenses from other sideline activities and did not collect money from their members.

As a consequence of the adoption of these six measures, the farming enthusiasm of the peasants is safeguarded, thus promoting the continual development of agriculture. From the beginning of the year to the end of September, 1,647 diesel machines, 997 electric motors, 74 small tractors, 617 sets of deep-well pumps, 1,916 sowing drills and threshers were purchased through the collected funds of the county's peasants. The number of livestock increased by 2,113; 603 new wells were sunk; 100,000 meters of flood-prevention furrows were repaired; over 1.8 million jin of improved varieties of various crops were introduced; sales of chemical fertilizers increased 15 percent compared with that of last year. This summer, our county's wheat yield per mu averaged 716 jin; the increase per mu was 44 jin compared with that last year. This fall, the corn yield per mu could reach about 850 jin; the increase per mu would be over 20 jin compared with that last year. The cotton yield per mu could reach about 185 jin; the increase could be over 20 jin compared with that last year.

NATIONAL

READJUSTMENT OF PLANT INDUSTRY'S STRUCTURE, DISTRIBUTION URGED

Beijing GUANGMING RIBAO in Chinese 31 Dec 84 p 1

[Article: "Academy of Agricultural Sciences Proposes Countermeasures Aimed At Farmers' Difficulties in Selling Grain; Seize This Opportune Time To Adjust the Structure and Distribution of the Plant Industries"]

[Text] How are we to treat the problems presently emerging of overflowing state granaries, farmers' difficulty selling grain, and soon? What influences will these have on the future development of agriculture? The Chinese Academy of Agricultural Sciences recently posed countermeasures after seriously researching the present situation of our country's grain requirements. They believe that, except for the grain surpluses transformed on the spot into livestock products and foodstuffs, paying close attention to the present advantageous opportunities in resolutely adjusting the structure and distribution of the plant industries is a task of top priority.

The Chinese Academy of Agricultural Sciences points out in the research report that upon looking at the current grain production needs nationwide, there exist two unbalances and two unsuitables. First are the unbalanced areas: the middle and lower reaches of the Chang Jiang occupy 20 percent of the area under cultivation in the whole country and produce 35 percent of the grain; and the northeast region occupies 70 percent of the area in the country under cultivation, although it produces less than 5 percent of the grain. Second are the unbalanced grain products: the northeast area has overstocked corn and soybeans, but lacks wheat; the middle and lower reaches of the Chang Jiang have overstocked rice but lack corn and soybeans. As for the surpluses and shortages of grain in other areas, the situation is similar. Regarding the two unsuitables: first the grain circulation channels and transport capacity are unsuitable; second, grain conversion is unsuitable. Compared to world standards, so far our countryman still only have a "relative surplus" of a low grain consumption level; grain production therefore absolutely must not be treated lightly.

In view of the analysis above, the Chinese Academy of Agricultural Sciences is stressing countermeasures to adjust the structure and distribution of plant industries, and mainly the adjustment of grain

products and improvement of grain quality, is gradually forming a new model of grain cash crop structure, namely fodder. For example, the southern rice area can gradually extend planting by interplanting corn with soybeans, bean-family crops and hay or high yield grain feed rice, while the north can switch one section of the soil used for corn and soybeans over to growing dry rice. This way, it is able not only to protect the equilibrium between rice and corn growing areas, but even more importantly, will alleviate the transport of large amounts of rice and corn between the north and south. Also by taking 30 million mu corn and switching it over to freshly stored corn, by this one item, 3 million head of milk cows can be raised, enabling a 20 jin increase of milk for everyone in the country; or making use of one section of the spaces in between corn and sorghum to plant companion crops in the legume family will expand the sources of protein fodder. Also, mature crops in excess of 100 million mu may be used for fodder, which will ultimately be returned to the soil while some tubers, sorghum and barley can be used directly as fodder plants, which will gradually form a rational fodder structure. By this mutual accommodation, there will be equitable distribution and the establishment nation-wide of different kinds of commodity grain bases. For example, in the south establish a quality grain base, in the north a quality wheat base, in the northeast a quality soybean base, as well as establish combined grain and cotton, grain and oil, grain and sugar, grain and livestock bases, and so on. Our country has approximately 100 million mu of cultivated land with a slope of more than 25 degrees. The soil yield of the upper reaches of the Jiang He is not high while the effect of soil erosion is extremely serious, and under the present conditions of dependable grain source supplies, cultivated land can gradually be returned to forest and pastureland, thereby improving the ecological environment of those places.

12883

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NATIONAL

LIVEHOG PRODUCTION POLICY QUESTIONS ANSWERED

Beijing NONGCUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 1, 5 Jan 85 pp 8, 31

[Article: "Policy Questions Concerning Livehog Production -- Responsible Persons of Animal Husbandry Bureau, Ministry of Agriculture, Animal Husbandry and Fishery, Answer Questions Asked by Staff Reporter"]

[Text] What is the situation with our livehog production today? How is the supply of pork this year? Is there any change in our purchasing policy? These are questions our urban and rural citizens are currently asking. Our staff reporter has paid a visit to the responsible persons of the Animal Husbandry Bureau of the Ministry of Agriculture, Animal Husbandry and Fishery, who have provided answers to pertinent questions, which we publish herewith.

I. What is the situation concerning livehog production in 1984? What is the situation concerning pork supplies according to our estimates this year?

The livehog situation in 1984 is fairly good; in the first half of the year there were 300,773 million head in our stables, an increase of 2.707 million head over the corresponding period last year and a growth rate of 0.9 percent. The production of pork was 12.82 billion jin, an increase of 620 million jin over the corresponding period last year and a growth rate of 5.1 percent. Yearend pork production also enjoyed an increase over last year. But there were only 29,624,000 head of livehog in our stables, a decrease of 2.28 million head from the corresponding period last year and a decrease rate of 0.8 percent. More noteworthy is that during the past two years our purchase of livehog has been decreasing gradually; in some localities the situation of "difficulty in selling hogs" has changed into that of "difficulty in purchasing hogs." According to available data at the Ministry of Commerce: in 1983 we purchased 124.3 million head of hogs, a reduction of 330,000 head from last year, with an average weight loss of 6 jin per head. In 1984 it is estimated that the purchase of 120 million head will be accomplished, a reduction of 6.25 million head from the planned purchase, and a reduction of 3.7 million head from last year. Because of selling in the market and an export amount larger than the purchase amount, in-stable hogs were appropriated. It is estimated that at year's end there will be 14 million head in our stables, a reduction of 2.9 million head from the corresponding period last year and a reduction of 5.45 million head from the corresponding period



in 1982. These conditions indicate that if we fail to resolve problems in producing and purchasing our hogs, normal supply of pork for this year is bound to be affected; leaders and concerned departments at all levels must pay great attention to this.

II. What are the causes for the reduction of livehog production in some localities?

Today, the income of our peasants who raise hogs, compared to that of other trades, is rather low; in 1957 every jin of pork could be exchanged for 5.49 jin of foodgrains; in 1983 the figure was only 3.25 jin of foodgrains beyond planned purchase at increased price. The net income from raising 30-40 heads of hogs is only 600-800 yuan, equivalent to the income from raising a medium milk cow, but the expenses and work for raising hogs are greater than those for raising cows, and the cost involved is also higher, to the point that raising one head of fat hog is less profitable than raising two old chickens. It is even less profitable than other industrial and sideline enterprises. Because of the role of this law of value, a considerable number of peasant households are unwilling to raise hogs but rather engage in other kinds of diversification.

III. How are we going to protect the enthusiasm of the peasants in raising hogs and develop the production of our livehogs?

Having a low income from raising hogs is not reasonable; the concerned circles are studying measures to solve this. The State Council has decided that, before the purchasing price for hogs is uniformly arranged, the various localities may float it appropriately, with the floated part for each 100 jin of pork not to exceed 10 yuan. Before the new measure is decided upon, the following points may be considered:

1. Adhere to the policy of rewarding sales. The standards of rewarding sales should not be reduced or abolished lightly. Many localities reward the sale of materials urgently needed by the peasants, such as chemical fertilizers, cement, construction materials, etc.; this approach can also play the role of encouraging the peasants to raise and sell hogs.

2. Areas where industrial and sideline enterprises are well developed may begin with such industrial and sideline enterprises in drawing an appropriate portion of their funds to support commune members engaged in farming to develop the raising of hogs; most counties in Suzhou Municipality of Jiangsu Province have done this and reaped fairly good results.

3. After implementing assigned raising and selling of livehogs, providing collectively subsidized feed for livehog raising should also be implemented. This may be deducted from the target produce of the contracted amount of foodgrains submitted by the contracting household; more may be deducted if more hogs are raised, less may be deducted if fewer hogs are raised, and nothing should be deducted if no hogs are raised. In localities where such planned allocation of feed is practiced, more may be allocated if more hogs are raised, less allocated if fewer are raised.

4. After the peasants have fulfilled their quota of assigned hogs to be raised and to be purchased, they should be allowed to sell their hogs or kill them and sell their meat freely. In localities where conditions permit, the method of allocating hogs to be raised or purchased may be canceled and the practice of allowing the producer and the buyer face each other directly may be enforced so as to reduce intermediate links and increase the producer's income.

#### IV. How should the countryside launch the scientific raising of hogs?

By mainly grasping well three things: One is diversifying the feed and rationally combining varieties. Those with relevant conditions may follow scientific prescriptions to produce synthetic feed. This feed, compared with uniform feed, can increase growth rates by 20-30 percent, in some cases by more than 100 percent. A second is cross-breeding. According to a survey by Suzhou Municipality in Jiangsu Province, in 1975 it took 181.6 days to increase the weight of 1,828 head of purebred out-of-stable local hogs by 100 jin, with an average daily increase of 275.3 grams; in 1982, it took only 100.8 days to accomplish this in 1,171 head of out-of-stable cross-bred hogs, with an average daily increase of 496.3 grams, and an increase of 221 grams over the pure-breed hogs. A third is doing a good job in disease prevention.

Moreover, lean meat is especially scarce in today's market; various localities are demanding measures to encourage peasants to produce lean-meat hogs. Most localities rely mainly on cross-breeding of two varieties. Certain localities where conditions are better may resort to three-variety cross-breeding or produce Yorkshire, Large Yorkshire, Duroc, Hampshire, and similar lean-meat varieties to satisfy the popular demand for pork.

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CSO: 4007/205

TRANSPROVINCIAL AFFAIRS

NORTH CHINA DAIRY INDUSTRY PROSPECTS DISCUSSED

Beijing NONGYE JINGJI WENTI [PROBLEMS IN AGRICULTURAL ECONOMICS] in Chinese  
No 9, 23 Sep 84 pp 48-51

[Article by Min Wenbin [7036 2429 3888], Nie Hongsheng [5119 1347 5116] and Ai Laizeng [5337 0171 1073] of the Research Institute for Agricultural Natural Resources and the Division of Agricultural Districts of the Division of Agricultural Districts of the Shanri Provincial Academy of Agricultural Sciences: "Prospects for Dairy Industry Development in North China"]

[Text] To solve the urban milk supply shortage, it is not enough to rely solely on developing a dairy cattle industry in the suburban areas, but we must also open up new channels. To this end, we surveyed the development of the dairy cattle industry in the counties and cities of Shanyin, Xinzhou, etc., in Shanxi, and from this we came to recognize the tremendous potential for developing milk products in the vast country side of north China. With correct guiding principles and beneficial measures, it is fully possible to build a strong dairy resource based in the vast countryside. This would not only solve the present urban milk supply shortage, but it would also have important significance in improving the diet of the Chinese people, establishing a rational agricultural production structure and enabling the people to become well-off as soon as possible. Here, we have taken several of the problems from our survey and research and presented them for the discussion of concerned comrades.

1. Rely on Rural Commune, Brigade Collective and Specialized Dairy Households to Develop the Dairy Cattle Industry

In recent years Shanyin County, which is situated in the northern area of Shanxi (Yanbei Prefecture), has seen tremendous development of its dairy cattle industry. In 1982, the number of dairy cattle raised in the county (including the provincial-run Shanyin farm) reached 4,035 head, and of these 922 or 22.8 percent were from the state-run ranch, 1,649 or 40.9 percent were from dairy cattle ranches from the 3 collective levels of county, commune and brigade and 1,464 or 36.3 percent were raised by specialized dairy households.

Before 1975, there was only one unit raising dairy cattle in this county, the provincial Shanyin Dairy farm. And in the 24-year period between 1958, when they began raising dairy cattle, and 1982, the average annual rate of

increase was 15.3 percent; the 3 collective levels of county, commune and brigade began raising dairy cattle in 1975 and in the 7 years between then and 1982, the average annual rate of increase was 30.8 percent. And commune members only started raising dairy cattle in 1981. That year, there were only 7 head but by 1982, the number had quickly increased to 1,464 head, a 209-fold increase in 1 year. In 1983, the number of households in the county raising dairy cattle reached 1,491 and the number of cattle reached 2,033, which was up 38.9 percent over 1982 (not including the state-run farm). The main reason why they were able to develop this rapidly is because the four levels of county, commune, brigade and commune member acted together. The dairy cattle of this county are concentrated on the south bank of the Sanggan He which surrounds the Shanyin Farm. A number of dairy cattle villages and communes have already sprung up and a fairly large-scale dairy cattle-raising district is just now taking shape. The Xuehuantu production brigade of the Xuehuantu commune in this area has 120 out of 306 commune member households who are raising 140 head of dairy cattle, with the collective raising 80 head, and so totaling 44.7 percent of all the dairy cattle raised in the commune. To support its commune members in raising dairy cattle, this brigade has adopted the method of the "the brigade propagates and the households raise," and it sells the female calves to households who are willing to raise dairy cattle. In 1982, the 70 head of producing dairy cattle raised by commune members produced 500,000 jin of milk and the 80 head of producing dairy cattle from the brigade dairy farm produced 550,000 jin of milk, or each raised about one-half. Among the commune members of this brigade, there were 8 households (36 people) who earned a per capita average income of over 1,000 yuan from raising dairy cattle alone, and there were 60 households (240 people) who earned over 500 yuan. Seen from our survey of five places in Shanyin County, the average production costs per jin of milk were 0.169 yuan and the sales price was 0.261 yuan, thus earning a profit of 0.081 yuan [as published] or a cost-profit ratio of 47.9 percent. Their costs were 9.5 percent lower than those of the state farm and the profit ratio was 13.8 percent higher. The costs for commune members were 27.2 percent lower than for the collective dairy farm and the profit (ratio) was 60.2 percent higher. At present, the county's dairy cattle industry is still in the developmental stage, the proportion of producing dairy cattle tends to be low and the milk produced per head is not high, either. But from now on, with the improvement in the composition of the cattle herd and in rearing management, the amount of milk produced by the herd can increase and there is great production potential.

Xinzhou's dairy cattle are mainly concentrated in the area of the Xinding farm in the eastern part of the city. According to statistics from the Xinding farm, collective dairy cattle and commune members' dairy cattle have both developed very rapidly in neighboring Beicaozhang, Gaocheng, Boming, Donglou, Yijing and in Yangfang and other communes of Dingxiang County. Collective cattle have increased annually by 231.67 head, or an annual increase of 65.7 percent.

In 1982, the total milk output in this area reached 6,401,000 jin and of this 2,764,000 jin or 43.2 percent was produced by commune and brigade collectives. In the first 6 months of the year there were only 37

households raising dairy cattle, producing 55,637 jin of milk, but in the first 6 months of 1983 the number had grown to 207 households, or a 4.6-fold increase over the previous year; the milk produced reached 475,062 jin or a 7.5-fold increase over the previous year and equal to 13.1 percent of the milk produced by the collective during the same period.

We can see from the situation in the county and city described above that in dairy industry development, collective dairy cattle develop faster than state-run farms and have better economic results, and that the speed of development for commune members is faster than for collectives and with better economic results. This agrees with the results of surveys by the Agricultural Economic Research Institute of the Chinese Academy of Social Sciences. And yet the dairy cattle development of collectives and commune members is very closely connected with state-run farms. The two counties' dairy cattle are all basically concentrated around the state-run. Apart from the fact that these areas are all irrigated agricultural areas with a high degree of inseparable from the energetic support given by the state-run farms in animal strains, supply of animals, rearing, breeding technology and milk product processing. At the same time, the local party and government departments conscientiously implemented the guiding principle of state, collective and commune members working together, and this, too, is an important factor. The Shanyin County party committee early on in 1974 clearly enunciated "let the farm lead the brigade, guide the entire county" and so supported commune members in developing a dairy cattle industry. Between 1973 and 1982, the Shanyin farm assisted Shanyin County commune members with 529 head of dairy cattle, 66,000 milliliters of semen and 15,000 milliliters of freeze-dried semen, and also assisted 6 communes south of the Sanggan He to set up dairy farms over a broad area. Thus, they enabled the number of dairy cattle raised in this one area to reach 75.5 percent of those raised in the entire county. Since 1975, the Xinding farm underwrote 481,830 yuan in funds and purchased 423 head of dairy cattle for surrounding commune member who set up 25 commune member' farms. On a foundation of developing a collective dairy cattle industry, they also adopted various measures to assist commune member in developing dairy cattle, and the collective aided the commune members by resolving cattle supply problems, supplying capital, setting aside land for raising feed and also organized a joint milk production and processing company with the three groups of state farm, collectives and commune members taking part, and implemented profit sharing. In 1982, the milk sales price for Shanyin County commune and brigade dairy farms and the commune member' dairy farms reached 0.261 yuan per jin, which was 5.2 percent higher than for the state-run farm. As a result, this greatly mobilized the enthusiasm of the collective and the commune member for raising dairy cattle and created a lively situation of state, collective and commune member working in concert.

## 2. Taking the Improvement of Cattle as the Point of Departure for Solving the Problem of Cattle Sources Is an Experience Worth Taking as a Lesson

The development of the dairy cattle industry in Shanyin County relies primarily on improving the local cattle in order to grow and thrive. Of the cattle in inventory in the county, 80 percent are basically improved

cattle. Since they began using improved cattle for milking in 1974, the percent of improved cattle among the total cattle in production has risen from 31 percent to 57.7 percent and the amount of milk produced by them has risen from 26.5 to 43.6 percent.

The work of improving the local cattle began in 1974, and at that time cattle were mainly beef cattle. The imported cattle included the small Holstein, Charolais, Hereford, and Mo-rui-hui [5459 3843 3500]. And later they discovered that using the small Holstein to improve the local cattle led to a fairly high milk-producing performance, and with the development of the milk processing industry of the Shanyin farm, they bought large quantities of fresh milk from surrounding commune member. From then on, this county used mainly the small Holstein to improve the local cattle and developed their own dairy cattle industry. From our survey of the county breeding farm's improvement of the milk-producing capacity of cattle, its milk-production performance is still quite considerable, and after just one generation of cross-breeding, milk production reached 5,778 to 7,161 jin, which is 59.1 to 67.1 percent of the amount for pure-bred Holstein cows. The improved cows not only showed excellent milk-producing performance after one generation of cross-breeding, but there is a tendency for successive generations to increase even more. Even more important is the fact that the improved cattle have strong adaptability and will be able to adapt fairly well to the local rural extensive rearing conditions. In a full year's rearing, straw forage grass makes up over 60 percent of the forage grass provisions (the rest is green fodder), and they can still maintain a fixed milk production, and moreover, the solid content of the milk was high. The Shanyin farm milk product processing plant uses local milk to process into powdered milk, and the powder making rate reached 15.27 percent, and yet the powdered milk made by the Hongqi farm of Shuoxian County using the milk of pure Holstein cows has a powder making rate of merely 14.25 percent. In addition, the improved cattle have dual-use functions, and apart from the female calves serving as younger generation dairy cattle, the male calves can be beef cattle and fattened, and they can also be raised to be working cattle, satisfying rural work needs and having fairly good comprehensive economic results. The county's cattle-breeding farm had 91 head of dairy cattle in production in 1982, of which 74, or 81.3 percent, were improved cattle; the annual milk production was 629,185 jin and they sold 579,509 jin of fresh milk, bringing an income of 151,208.75 yuan. After deducting production costs and taxes, net income was 61,571.22 yuan or 64.7 percent of the net income for products; the value of the calves, meat and fertilizer sold is worth 33,621.55 yuan, or 35.3 percent of the net income from products.

Their method of handling things has provided valuable experience. When we raised the subject of developing a dairy cattle industry in the past, we fixed our eyes on Holsteins and felt that developing improved breeds was impractical. But actual experience tells us that with improved cattle, milk production is by no means low, raising from 2,000 jin up to 5,000 to 7,000 jin, which is over 60 percent of the amount produced by Holsteins and is also close to the amount of milk produced by other dual-purpose cattle

throughout the world. China's northern area has a solid cattle base with 40.94 million head or 50.5 percent of China's cattle, and is a centralized production area for the nation's cattle. All five of the superior breeds of cattle are concentrated here. If we were to take 20 percent of the cattle and improve them for the purpose of milk production, then we could double the present annual milk production of 2.5 billion jin. In addition, improving native cattle to develop dairy cattle suits our current rural productive forces. Even though the milk production from improved cattle is still not too high, their feed management requirements are not high either, and they can use large quantities of straw from village crops and simple and crude pens and equipment, investment is low, there are extensive cattle sources and they are easy to raise. Added to which, they can be used for beef and as work animals, their overall economic benefits are high and this fits China's national situation.

### 3. Setting up a Milk Product Processing Industry and Clearing Out the Channels Between Rural Milk Sources and Consumption Markets Are Important Conditions for Developing Rural Milk Product Resources

The production of milk products is a kind of commodity production and it is directed and restricted by the laws of commodity circulation. One of the reasons that the speed of developing Shanyin County dairy cattle has been very fast is because of the conditions for processing milk products at the Shanyin farm. The amount of milk products processed at the Shanyin farm increases yearly. And apart from processing and using the milk product resources of its own farm, it also takes in large amounts of milk resources from Shanyin County's communes and brigades, and in recent years the amount of fresh milk sold by Shanyin County to the Shanyin farm is over 80 percent of the total amount of fresh milk produced in the entire county. This clearly reflects the importance of conditions for processing milk products on the development of rural milk resources. In addition, only by going the route of "animal husbandry-industry-commerce" are the state farms able to rationally use product resources and allow production to develop even faster. Otherwise, without the conditions for processing milk products, there is no market for the milk, and the dairy cattle industry will not be able to expand much. With rural environmental conditions, the production of milk products is different from the production of milk products in an urban or suburban setting, for it must have the conditions for processing and it must also make the processing of powdered milk the main items. Only in this way can they overcome the special feature of the very high moisture content of fresh milk and the difficulties of storage and transportation, and so expand the scope of sales.

### 4. Develop Both Dairy Cattle and Goats and Expand the Source of Milk Products

At present, the composition of our milk products is not fully rational. Of the total amount of fresh milk produced nationally, 83.4 percent is cow milk and only 16.6 percent is goat milk, though in the north the percentage of goat milk is a bit higher, at 20.2. The solids content of goat milk is far



higher than that of cow milk and has even higher nutrient value. Moreover, goat milk fat globules are small 0.001 mm in diameter, compared to 0.003 mm globules in cow milk, it is easily absorbed by the human body and is an ideal food for infants, the ill and the elderly. Even though goat milk has the taste and smell of mutton, if care is taken with milking sanitation and additional processing techniques are used to dispel the mutton taste, then this defect can be overcome. Dairy goats have the advantage of high fertility, rapid growth, ability to be put into milk production early, a short reproduction cycle and high economic value, and so are quite suited to being raised by peasants. In recent years, dairy goats have developed rapidly in north China, particularly in Shaanxi, Shanxi, Henan and Shandong and have already become a major family sideline occupation in the broad countryside. In 1982, Shanxi had 187,000 dairy goats and the total output of goat milk reached 46,514,600 jin, which was equal to 39.5 percent of the province's total cow and goat milk output. In 1982, the whole province produced 5,024,800 jin of powdered milk, and of this, 2,364,900 jin, or 47.1 percent, was powdered goat milk; it processed 857,500 jin of condensed milk out of which 331,600 jin, or 38.7 percent, was condensed goat milk. The province's dairy goats are concentrated mainly to the south of Taiyuan City, in the prefectures, the annual goat milk output in the seven counties of Dingxiang, Taigu, Pingyao, Hongtong, Linyi, Wanrong and Xinfeng was over 2 million jin. Apart from natural conditions, the creation of this pattern is mainly because the area has many people, little cultivated land and abundant labor resources, and can draw on a considerable number of people to engage in animal raising. In 1982, Taigu County had 7,024 commune members' households raising 10,243 goats, an average of 1.46 goats per household. The rearing of goats by commune households is purely a sideline occupation. Taking out a sickle and bringing back an armful of grass solves the feed problem. And one goat produces an average of 3.6 jin of milk daily, and 727.6 jin annually, bringing an income of 109.14 yuan. Gao Linwa, a commune member in the Gujiabao brigade of Chengguan commune in this county, has a daily of 3, and in 1981 they raised 12 goats of which 11 were in production. Every day they sold 40 jin of fresh goat milk, selling a total of 9,600 jin in 8 months. Each jin brought in 0.15 yuan, an income of 1,440 yuan, and from this project alone, the per capita income was 480 yuan.

The above situation tells us that goat raising is even better suited to commune family farms than is cow raising. Provided that a preproduction and postproduction system is set up, hundreds upon thousands of households can begin raising goats, and its developmental potential is very great. In the past few years, we have an excellent developmental situation for dairy goats in north China, but we still do not have full use of goat milk resources. For example, in 1982, 19,770,900 jin of processed goat's milk was purchased in Shanxi, but that was only 42.5 percent of the province's goat milk, and there were some places where the people ended up using goat milk as hog feed, which was a tremendous waste in resource utilization. From now on, on the one hand, we must make full use of the potential of the processing facilities that we currently have (in Shanxi in 1982, the actual amount processed was only 42.8 percent of the equipment's processing capacity), and, on the other hand, we must rationally readjust the distribution of milk product processing plants, and purposefully set up a production base for dairy cow and dairy goat powdered milk over several fairly large areas. This would have major significance in solving China's shortage of milk products.

##### 5. The Full Utilization of Green and Coarse Fodder Resources Is an Important Measure for Solving Insufficient Fodder for the Dairy Industry

At present, insufficient fodder has become a limiting factor in the development of China's dairy industry. In Beijing, each additional mature dairy cattle requires an additional .5 mu of green fodder land, but in reality, each mature dairy cow gets only 3.8 mu of green fodder land. In Guangzhou City, each dairy cow gets 1.2 mu of green fodder land at the most, and just 0.53 mu at the least, and so one dairy cow is only supplied with 26 to 48 jin of green fodder daily, which is far from able to meet dairy cattle requirements. From now on, with the development of various urban construction enterprises, the suburban dairy industry will inevitably be limited in land, forage grass and feed, and so some people have proposed the plan of gradually shifting the suburban dairy industry from the close-in suburbs to the farther-out suburbs. In addition, hay is also a problem. Every year, Beijing must ship in 15,000 tons of hay from the northeast or 80 percent of the hay used, and the cost per jin can reach 0.10 yuan or more, directly affecting the economic results of the dairy industry. Finding a solution to the dairy industry's forage grass problem would by no means be difficult in the broad countryside. To take Shanxi as an example the entire province has 55.66 million mu of grassy mountain and grassy flatland plots of over 300 mu or 24 percent of the total territory, and there are more than 10 million mu of scattered plots of grassy land of 300 mu or less. And the province has about 10 to 20 million mu of remote grassy mountains that have still not been opened to development and use. If we could develop and use them well, and cultivate superior varieties of forage grass, they could supply a minimum of 26 billion jin of forage grass annually. In addition, there are about 20 to 30 million mu of land withdrawn from cultivation, abandoned land and barren saline-alkali soil, and if they were put into use as well, they could supply 20 billion jin of forage grass. Beyond this, the province also has an annual output of over 30 billion jin of various kinds of crop straw with tremendous potential as forage grass in developing animal husbandry. We surveyed five dairy cattle work units in Shanyin County. They had an average of 4.3 mu of forage grass land per head, and although the land was mainly saline-alkali soil and the grass yield was not great, it still met the needs of the dairy cattle for green fodder. It is worth noting that crop straw was a very big proportion in this county's dairy cattle forage grass composition. If you deduct wind-dried grass from the green fodder, then it would be only 30.9 percent of the cattle's annual forage grass and straw forage grass would globe 69.1 percent. For dairy cattle in production, the amount of straw forage grass would also be 57.4 percent. And whether it is commune or brigade collective dairy cattle or the dairy cattle raised by commune members, they all use straw to raise dairy cattle for about a half-year period.

Shanyin County has traditionally had the custom of using straw to raise goats. The straw used by this county to raise animals is mainly from millet and corn. In 1982, the area planted in millet and corn was 14.9 and 11.7 percent, respectively, of the area planted in grain crops. In the Pinchuan area where there is concentrated rearing of dairy cattle, they reach 20.5

and 18.0 percent, respectively. To fully use straw fodder resources, in recent years, the county has gradually changed the method of chopping and breaking up fodder and feeding it directly, and have generally propagated technology for corn stalk silage. And in addition, they have also spread silage technology for corn stalks with added urea, thus raising the utilization of the corn stalks to 95 percent.

We feel that the experience of Shanxi's Shanyin, Xinxian and other counties and cities in developing dairy cattle and dairy goats can be drawn upon as we develop and use the dairy product resources of north China. It shows the feasibility and developmental and utilization prospects for building stable dairy product production bases in the broad countryside. From here on, in developing a dairy industry in north China, we can consider placing the strategic point of focus in the broad countryside, rely fully on commune and brigade collectives and on the households of commune members to develop dairy cattle, use improved native cattle to develop dual-use dairy cattle and so solve the problem of cattle sources, solve the problem of rural milk product processing, get a good handle on dairy goats as a source of milk products, fully use silage and coarse fodder resources to develop the dairy cattle and dairy goat industries, and in this way play a considerable role in ameliorating the shortage of milk products for large and medium cities and in industrial and mining areas.

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12452

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TRANSPROVINCIAL AFFAIRS

FAMILY FARMLAND REZONING SUPPORTED

Beijing ZHONGGUO NONGKEN [STATE FARMS AND LAND RECLAMATION] in Chinese  
No 1, 24 Jan 85 p 32

[Article: "Rezoning of Family Farmland"]

[Text] A working family farm is a self-responsible economic unit under the general guidance of the state-managed farms. Based on the unit of either a family or joint households, each unit is thus responsible for handing in to the state its assigned amount. Family farms may take over the management of state-owned land, forests, grassland and pastures and water and run their own individual enterprises of agricultural production, forestry, animal husbandry, sideline enterprises or aquaproducts. Therefore the planning of this new type of enterprise, the working family farm, deserves attention because it is an innovative and important feature. Based on the preliminary research we have done, we have arrived at the following aspects in the relevant work of planning:

1. We should carefully look into all the resources that are available for state-managed farms in order to compile both accurate reports and useful evaluations of this area in our work of determining future development.

For example, we need detailed surveys of natural conditions, such as topography, geographical and soil conditions, climate, forestry, and underground water. All this information will be used as the basis for establishing such agricultural sideline enterprises as forestry, animal husbandry and fisheries. All these enterprises will, of course, change the general economic level. In addition the planning of irrigation, forestry, cultivated fields and roads will be based on the five regulations. In the area of river tributaries, the planning for medium to large engineering tasks will be done as formerly through the channel of capital investing. The management of these tasks will be controlled by the national bureau and the engineering departments that are under the management and the agricultural departments. Engineering work that is relevant to agricultural fields belongs in principle to the responsibility of the family farms and in practice, it can be paid for through the levying of capital funding or actual labor.

## 2. The Size of Family Farms

Both the size and scope of the family farm should be based on the different regional situations, rather than rigidly determined. The deciding factors should include natural, economic and social conditions. They, therefore, include such considerations as diverse as the differing ways of agricultural cultivation and production, soil condition, climatic factors, agricultural basis, density of forests and the network of irrigation channels, the nature and size of machinery, as well as the different ways of labor employment. In the consideration of the various regions, their special conditions must be evaluated and their natural advantages utilized in order for the most suitable family farms to be determined. For example, the smallest family farm of 450 mu should be maintained at a distance of 300 m from the forest and within the 1,000-m range in length of fields. An increase of several times to 10 or over 10 times will make the farms 4,500 or 6,000 mu in size. As a result, the family farmland will not be scattered and the irrigation of the land by irrigation machinery, will also be facilitated. In the structural determination of the field, a unit of 800 m can be used as the standard while the individual sizes of family farms can be decided according to the most economical factors.

After the establishment of family farms, the implementation of small-scale irrigation systems will be an important part of production. Among the total cultivated acreage within Heilongjiang Province, 5 percent of the total 33 million mu is low-lying terrain. Therefore, the individual family management of this land will result in varying, albeit improved, yields. As a result, within Heilongjiang's total cultivated acreage, this improvement will mean an increase of 1.5 to 2 million mu.

12740

CSO: 4007/231

ANHUI

## GVAO REPORTED TWICE THAT OF 1978

Hefei ANHUI RIBAO in Chinese 13 Dec 84 p 1

[Article: "GVAO in One Prefecture, One City and Nine Counties of Anhui in 1983 Doubles That of 1978"]

[Text] Since the Third Plenary Session of the 11th CPC Central Committee, Anhui has continually been closely involved in the restructuring of the rural economy. It has brought tremendous development in agricultural production, and a group of prefectures, cities and counties have emerged doubling the gross agricultural output value [GVAO]. According to statistics, in 1983 the GVAO in Chuxian Prefecture, Bengbu City and the nine counties of Guoyang, Mengcheng, Huaiyuan, Guzhen, Sixian, Fengyang, Dingyuan, Fengtai and Suixi was double that of 1978.

The difference in the GVAO of 1983 in Chuxian Prefecture and Bengbu City amounts to 1.42 billion yuan and .82 billion yuan respectively, twice that of 1978.

The 1983 GVAO in the nine counties was 2.32 billion yuan, 1.3 times greater than the 1.010 billion yuan of 1979 and an increase of 1.7 times in Fengyang County which ranked it first in the whole province for rate of increase. By 1983 the GVAO in these nine counties had risen 18.2 percent more than the 11.7 percent for GVAO of the whole province in 1979. In 1982 the gross per capita agricultural output value in these nine counties reached 371.7 yuan, 29.3 percent higher than the average level in the entire province, and higher than the corresponding level in the whole country.

These nine counties altogether have an agricultural population of 6.244 million people of which 2.572 million make up the agricultural workforce, 14.1 percent and 14.7 percent of the entire province. In 1983, the grain yield reached 8.12 billion jin, composing 20.2 percent of the entire province's gross output, an increase of 1.2 times from the 3.69 billion jin in 1978. In Dingyuan County, the grain output rate of increase rose the fastest, more than doubling. The nine counties' commodity and grain expenditures reached 3.13 billion in 1983, 22.5 percent of the total sum of the province's commodities and grain, an increase

of nearly five times since 1978. The commodities led by 38.5 percent which was higher than the provincial level. The cotton yield rose from 215,000 dan in 1978 to 578,000 dan in 1983, an increase of 1.7 times. Edible oil and grain output reached 2.971 million dan, increasing 3.9 times since 1978, with a rate of increase higher than the average rate in the whole province.

12883

CSO: 4007/173



ANHUI

# SPECIALIZED HOUSEHOLDS INCREASE 38 PERCENT

Hefei ANHUI RIBAO in Chinese 9 Jan 85 pp 1, 3

[Article: "Anhui's Specialized Households Develop Rapidly Last Year; Up 38 Percent From Previous Year To Constitute 20 Percent of All Farm Households"]

[Text] In 1984, specialized households of all sorts developed rapidly in Anhui. Statistics show that there are 1.93 million such households in Anhui, which amounts to 20 percent of all farm households. This figure is up 38 percent from the previous year. This proliferation of specialized households has had a vigorous, positive effect on commodity production and resulted in booming growth across the board in the large stretch between the Chang Jiang and the Huai He.

Specialized households are becoming specialized villages and townships. Wealth in one household spurs wealth nearby. These specialized households serve as strong role models and are highly attractive. Wherever one household takes up a specialty and becomes affluent, neighbors come to learn what they are doing. Soon specialized villages and townships are formed. Shi Shengyu, a farmer in Shunshan Township of Lai'an County, began cultivating flowers in front of his home and became a specialized florist household. In 1983, the village became specialized and by 1984 half the township's farmers had done so. Retail outlets were set up in over 10 Anhui cities, and profits passed one million yuan. The specialized nylon cord market in the Caimiao Township of Taihe County started off in the rural hamlet of Pitiaosun, but has now spread to over 2,800 manufacturing and 3,000 transportation households in 135 villages in Taihe and Jieshou counties. Based upon incomplete statistics, Anhui has 3,944 specialized villages and 66 specialized townships. This is a big step toward specialization and township urbanization for farm production.

There have been major developments in specialized service households. At the moment, almost one-third of all specialized households are commercial, transportation, or service-oriented. Developments have been most noteworthy in the three areas of information, linking up buyers and sellers, and chartered trucking. The more than 4,000 information specialists among the farmers of Tongcheng County are known as "dual messengers," serving as "inspection troops" as to market conditions and bringing new techniques.

The output value of this county's village enterprises and household industries in 1984 topped 100 million yuan, primarily by relying upon information provided by these specialized households for arranging production and selling products through them all over the nation. Village enterprise and household industry output value in Yu'er Townwhip in Huaining County was above 10 million yuan. This was done mainly through contracts signed outside the district for purchase and sale by a cadre of over 400 specialized households, who brought the raw materials in and shipped the products out. The weak link nationwide at the moment is transportation. The phalanx of specialized transportation households in Anhui swelled in 1984 to over 100,000 from just above 20,000 the year before. There were more than 7,000 trucks. Tonnage capacity on vessels used for shipping by farmers in the 3 Anqing Prefecture counties of Congyang, Wangjiang, and Guichi reached 40,000, more than double that on vessels in state-owned transportation departments.

Seeking affluence through S&T has picked up the pace of agricultural modernization. A survey in Shitai County shows that more than 85 percent of peasants in specialized households are literate. Five thousand members of specialized households in Lu'an Prefecture went outside the prefecture in search of technical training, and over 500 instructors in various skills were brought in. Fourteen members of specialized florist households in Lai'an County are paying their own way to study at Nanjing's Institute of Forestry and Horticulture. Ten households are sending their children to universities such as Anhui Agricultural College. Deng Changqing, a specialized householder in grain and tobacco in Xuancheng County, has taken out his own subscriptions for 18 periodicals, and his per-mu yields on two crops of rice are 600 jin above those of his neighbors, while his net tobacco production is up 30 percent. The noted chicken-rancher Cao Quixiang is famous throughout China for his successful techniques and experience in raising chickens. In the last few years he has hosted more than 30,000 "scripture seeking" visitors and answered more than 10,000 letters of inquiry. He has held more than 10 training courses on chicken-raising for over 1,700 students. Still, he remains unsatisfied and continues to improve.

The many specialized households are models of how hard work pays off and paragon soldiers in the establishment of a spiritual civilization. The survey of the Suxian Prefecture indicates that specialized swine householder Zhou Desheng bought the most state treasury certificates, best fulfilled collective tasks, least bothered his neighbors, most enthusiastically studied and implemented party policies, and was the most steadfast. Local butchers all put in for the 30 head of fat hogs he sent to market at top prices, but he took a cut of 1,500 yuan to sell them all to the state. After melon gardener Wang Shiran of Funan County became affluent, he contracted with 78 neighboring households for his skills with watermelons. Per household income increased almost 2,000 yuan. Large forestry contractor Wang Quanqing of Heshan County gave away seedlings worth over 6,000 yuan to local farmers.

Understanding by all party and government levels of the role and position played by specialized households in realizing the four modernizations is

becoming clearer all the time. Consequently they increasingly support and protect the self-estimates of these households. All levels of leadership have made development of specialized households the primary measure for implementing Central Committee Document No 1 and realizing the two transformations. The provincial committee and government held a meeting with representatives of specialized households early last year. They issued "Certain Regulations on the Protection and Support of Specialized Households in Developing Commodity Production." Provincial committee members indicated again and again that the specialized households were the front line in developing commodity production and enthusiasts for building the four modernizations, and that any attack on the specialized households was an attack on commodity production. Any harassment of specialized households would upset the four modernizations. Interruption of specialized household production or impingements upon their personal security would be treated in accordance with the law by the provincial procuratorate, industrial and commercial executive management bureaus, and the agricultural bank. All these units support concrete regulations protecting the specialized households and have worked hard to develop them. Twenty-six units directly subordinate to the Jiashan County Organization have formed a countywide service "chorus". Individual services have become comprehensive. Protection of partial interests has become protection of comprehensive ones. Specialized households have proliferated in the county. Comrades from provincial, prefectural, city, and county organs make it a point to visit specialized households when they are in the countryside, helping them with their difficulties and concerns. Some have taken it upon themselves to handle incidents where legitimate rights and interests of specialized households have been infringed.

At the present time, major problems are: insufficient socialization services; many specialized households have felt that the information they receive is stale; insufficient funds; backward techniques; buying and selling problems. One special problem is that some cadres and masses have not yet eradicated "leftist" thinking. "Red eyes" is a common ailment. So there are numerous checkpoints, and infringements of the legitimate rights and interests of specialized households occur all the time. These problems are major obstacles to further development of rural commodity production and must be overcome.

12303  
CSO: 4007/248

ANHUI

# SERIOUS PROBLEMS IN COTTON PROCUREMENT REPORTED

Beijing ZHONGGUO NONGMIN BAO in Chinese 23 Dec 84 p 2

[Letter written by reporter Wang Yuling [3769 3768 1545]: "Forcing Down Procured Cotton Grade and Price Is Serious in Some Places in Anhui"]

[Text] Editorial board: Recently in Anhui province, the comrades in charge at the Anhui Agricultural, Animal Husbandry and Fishery Bureau vehemently made known the serious damage to peasant interests by departments involved in forcing down at will the grade and price of procured cotton. They called on newspapers to use exposure to accelerate the solution of the problem.

According to my understanding, in Anhui Province the departments involved this year in forcing down the grade and price of procured cotton are fairly widespread. Textile mills, in order to reduce costs and increase profits, publicly declared that they are not allowing long fiber high-grade quality cotton, but only medium and low level cotton below the third grade. The procurement sectors in order to fulfill their obligations to the state and contract quotas, have adopted a succession of "using adjustments to determine procurement" methods, arbitrarily forcing down the cotton grade, which deceives and hurts the farmers. For example, at the Suxian County Cotton Gin, the Shunhe Procurement Agency took the third grade cotton 29 millimeters long and lowered all of it to fourth grade 27 millimeters. Some procurement departments are still arbitrarily deducting more moisture content and impurities to take advantage of the situation to benefit themselves. In Lingbu County, one procurement station pushed down the proportional deduction for moisture content in the cotton received, down to 16.5 percent, when upon undergoing inspection the combined water quantity was really only 12.5 percent, a deduction of more than four jin for each dan.

Due to level after level pushing down the grade and price, cotton farmers have sustained serious economic losses and pour out endless grievances. In Suxian Prefecture in October of this year, a portion of the procured cotton grade dropped 1.5 grades compared to the same period last year, reducing the price of each dan by 21.8 yuan. Dangshan County reported

that for each dan of cotton the farmers sold, their earnings decreased by 340 yuan compared to last year. In Zhouhai District of the above-mentioned county, Guo Ziming angrily took 49 jin of cotton that had not been sold and burned all of it, vowing not to plant any again next year. The Agricultural Department thinks that the Spinning and Weaving Department's and Commerce Department's limiting the procurement of quality cotton will reduce cotton quality, and already some relatively short fibers have been eliminated through competition, and ordinary grades of the old varieties will be used again in large quantities with extremely serious consequences.

The reporter thinks that the above-mentioned situation should stimulate sufficient concern among the departments involved, and that preventive measures must be adopted to realistically to protect the initiative of cotton farmers and ensure that their vital interests are not affected.

12883

CSO: 4007/179

GUANGDONG

#### AFFORESTATION RESULTS REPORTED

Guangzhou NANFANG RIBAO in Chinese 27 Dec 84 p 1

[Article: ["Implemented Forestry Policies Display Impressive Strength; Our Province's Afforestation Renewal Achieves 10 Million-Mu Breakthrough; Provincial Greening Committee Held Meeting Yesterday Presenting More Than 300 Advanced Afforestation Units and Individuals"]]

[Text] In Guangdong this year the afforestation and regeneration area grew to 10.7 million mu. Of that area, 9.3 million mu represent an increase of 12 percent over last year, which is nearly equal to twice the area of 1982, the largest-quantity and highest-quality year in our province's history of afforestation. Yesterday the greening committee convened a Presentation Plenary Session and awarded medals to 163 advanced units and 193 advanced individuals in the whole province.

A provincial committee member, the greening committee's deputy director, Ling Botang [0407 0130 2768], spoke at the Presentation Plenary Session. He urged the delegates to carry on the achievements and to make persistent efforts so that the greening movement will make new contributions by doing good preparatory work for the afforestation task of the approaching new year and upgrade even more the afforestation in our province.

Since the Third Plenum of the 11th Party Central Committee, everyplace in our province has genuinely implemented a series of general and specific forestry policies from the central authorities. From pure dependency on the state and collectives in the past, afforestation has transformed the state, the collectives and individuals simultaneously, as 1,000 families and 10,000 households manage private and assigned hillside plots and forestry key households, specialized households and unions spring up at the same time, numbering more than 240,000. The new military spirit released by afforestation is constantly rising. Only the "two household, one unit" contract of managed mountain regions and the masses' private hillside lots in this year's afforested area occupies 63 percent of the entire province's man-made forest area.

In recent years, the whole province's afforestation movement has become better and more solid every year. This year, the number of people participating in our province's afforestation task amounted to more than

18 million and there were more than 160 million trees planted, an increase of 31 percent and 64 percent, respectively, from 1983, more than the five-tree average of every citizen's tree-planting obligation. Cities, market-towns, institutions and schools stress afforestation as the substance of the construction spirit civilization and glorify the new practice of greening and beautifying the environment.

In order to consolidate the achievements and be ready for next year's afforestation, the Presentation Plenary Session summed up the greening work, exchanged the experiences of the afforestation advanced units and individuals from 1982 onward and discussed and arranged future work.

12883

CSO: 4007/181



HEBEI

# TOWNSHIP ENTERPRISE INCOME INCREASES REPORTED

Shijiazhuang HEBEI RIBAO in Chinese 15 Feb 85 p 1

[Article: "Township Enterprise Is the Breakthrough To Bring About Doubling"]

[Text] In 1984 the villages of Baoding Prefecture achieved an increase in per capita income of 100 yuan, and township enterprises represented more than 58 percent of that increase. We can safely say that township enterprises are playing a decisive role in this area. In 1984 township enterprises throughout the prefecture expanded to number more than 264,000, a 100 percent increase over the previous year. More than 900,000 people were engaged in this kind of work, representing 29.4 percent of the total rural labor force, and their gross income reached 1.42 billion yuan--a greater than 100 percent increase over the previous year. Of the 21 counties in the prefecture, in 1983 the gross output value produced by township enterprises surpassed 100 million yuan in Li County alone. By contrast, in 1984 this was suddenly the case for eight counties. Township enterprises have already become an important economic mainstay in Baoding Prefecture villages.

At the beginning of 1984 the Baoding Prefectural Party Committee and Administrative Office proposed that they wished to achieve the goals of a "100 yuan increase" and a "doubling" within the year. In addition, based on actual situations throughout the prefecture, they wished to make township enterprise development the breakthrough through which they might realize this objective. They established a way of thinking based on household industry, encompassing a five-part force composed of specialized households, economic associations, collectives, small cities and towns and specialized markets all keeping abreast of each other, and they proposed that they wished to accomplish the specific task of doubling township enterprise within the year. Immediately thereafter, the major leaders of the Prefectural Party Committee guided the leading cadres of each county to look over and study the South. They freed their minds from old ideas, changed old traditions and outdated thinking that subordinated township enterprise to rural sidelines and they established the new concept that one can neither prosper without work nor live without commerce. Based on their actual local situations, the various counties substantially revised township enterprise leading bodies and gave them priority

support in terms of credit, goods and materials and tax revenues. In order to implement the plan to double township enterprises, some counties also adopted a step by step method that escorts enterprises along each step of the way and assigns responsibility level by level so as to produce a reliable guarantee of township enterprise development. Policies were formulated throughout the prefecture to emphasize strengths, avoid weaknesses and delineate direction, to unify collectives, economic associations and individuals, and to ally the state, collectives and individuals. As far as superior prefectural properties are concerned, they adopted means to integrate the high and the low, to organize jointly and to have the household guide the village and the factory guide the countryside. A few years ago there were only a few plants processing medicinal materials in Anguo County, but after methods to integrate the high with the low and to organize jointly were adopted, in 1984 the number of plants expanded to 82, the number of distributing and processing households reached more than 5,000 and more than 10 million jin of medicinal materials were sold that year.

The major factor in the growth of enterprise throughout Baoding Prefecture is that funds are pooled from all quarters and the initiative of the peasantry is fully aroused for the establishment of enterprises. In 1984 the number of peasants in Baoding Prefecture who pooled funds to set up enterprises was so large, the quantity of pooled funds was so great and the speed with which plants were set up was so fast that these figures exceeded those for any previous year in history. The quantity of funds pooled to set up plants throughout the prefecture reached more than 247 million yuan, and of this amount the peasants themselves raised more than 140 million yuan, local public finances provided more than 2.8 million yuan, 10 million-plus yuan was absorbed from social investment and over 90 million yuan was extended on credit. The reason that peasants dare to and are willing to invest in the establishment of enterprises is that they already recognize that good management of township enterprises is the major route to acquisition of wealth. Of the 14 villages in Pingwu Township, Rongcheng County, in 1984 13 of them pooled funds to set up 97 flour mills in outside areas. Some 360 households participated in the pooling of funds and a total of 7 million yuan was accumulated, for a possible total profit of 3 million yuan for the year.

An additional reason for the rapid growth of township enterprises in Baoding Prefecture is that they have brought in qualified personnel and accelerated the development of expertise. In 1984 a total of more than 2,100 qualified personnel of all sorts were brought into the prefecture, of which 141 were engineers and teachers. The import of qualified personnel not only raised the quality of township enterprises but also allowed a large group of depressed enterprises to get a new lease on life. Originally, the Yang Village chemical plant in Dingxing County produced only industrial sulphuric acid, a product with a narrow market and low profits. The plant engaged three engineers and technicians from Beijing and Shijiazhuang chemical sectors to act as consultants and rapidly developed phthalic acid, reagent nitric acid and

other new products, and that year increased their income by more than 20,000 yuan. According to incomplete statistics, in 1984 Baoding Prefecture's township enterprises sent 7 workers to universities and colleges for further training, selected more than 400 workers to send to large state-run enterprises for study, set up 389 specialized and technical training courses of all kinds and trained a total of more than 15,000 assorted personnel in construction, the food industry, the chemical industry and financial associations.

Simultaneous with the development of township enterprises, Baoding Prefecture has been stressing good pre- and post-production services, unclogging circulation channels, opening specialized markets and establishing perfect circulation, information gathering and transmission networks. There are a total of 5,000-plus supply and marketing trade organizations in the prefectural township enterprise system, among which 83 are at the county level, more than 800 are operated by rural collectives and upwards of 4,100 are jointly managed or run by rural households. The total volume of business reaches 100 million yuan. These management organizations play linking and promoting roles in township enterprise development. Throughout the prefecture there are more than 2,000 information organizations that transmitted some 18,000 items of information in 1984. Of these, more than 4,000 were adopted and put into effect.

12510

CSO: 4007/267

HEBEI

BRIEFS

OIL, GRAIN PRICES UNCHANGED--The Provincial Commodity Bureau director answered this staff reporter's questions. Recently, rumors emerged in some places in our province that "next year on 1 January the price of food will rise" and "grain tickets will be abolished." In order to clarify this problem, today the reporter visited the director of the Provincial Commodity Bureau. The above-mentioned director said, we have not learned of any news of the state readjusting the price of oil and grain rations in respect to the non-agricultural population or abolishing grain tickets beginning next year on 1 January and would like to communicate to the residents of plants, large cities and towns that they should not give credence to rumors. This director also said that grain departments everywhere should vigorously produce good grain and oil processing, transfer work and avoid the cutting off of supplies. Grain stores everywhere should not restrict the quantity of grain purchases to residents and may still use methods of payment for grain supplies on a cash first basis. [Text] [Shijiazhuang HEBEI RIBAO in Chinese 16 Dec 84 p 1] 12883

CSO: 4007/173

HEILONGJIANG

# PEASANTS ALLOWED TO BUY COLLECTIVE-OWNED LARGE FARM MACHINERY

Harbin HEILONGJIANG RIBAO in Chinese 29 Jul 84 p 1

[Article: "Large Farm Machinery May Be Sold to Peasants; Provincial Government Makes Clear the Stipulations"]

[Text] The Provincial People's Government will permit the selling off of collective-owned large farm machinery to individual peasant businesses.

This was made clear recently in the following report issued by the provincial Farm Machine Bureau on instructions from the provincial government.

The facts enumerated in the provincial Farm Machine Bureau's report make it clear that under the inspiration of the Party's rich people policy, the peasants in many localities early on broke through the past restriction that large farm machinery could only be managed by the collectives. In the wake the development of the rural economy in the direction of specialization, commoditization and socialization, the peasants are qualified to manage large farm machinery; large farm machinery has been returned for individual ownership or to be managed by individuals and in many localities the economic results are better than when managed by the collectives.

The directive of the provincial government requires:

1. The selling off of large farm machinery must be realistic and in accord with local conditions rather than by some arbitrary formula. The collective should do the managing when appropriate, individuals when appropriate, and there should be joint management when appropriate. We must enthusiastically support the development of farm machine specialized households and mechanized family farms.
2. We must resolve policy questions in the selling off of the machinery. We must set rational prices, and prevent the use of authority for personal gain, favoritism toward close friends and relatives, and harm to the collective interests. The period for payment must not be excessively long, generally three to five years would be appropriate, and the money should be called in on schedule at the current rate. For those who owe on loans from the state, we should clearly stipulate that the buyer will pay the bank interest, and fix it in a contract to ensure that the money will be taken in at the end of the term at the current rate.

3. Enhance regulation and provide services. After the peasants begin operational management of large farm machinery they must assume the responsibility, formerly residing with the collective, for cultivation services, and provide such services for the households in the local township or village without machinery or livestock. The township government must apply the "one fix, two unites, three guarantees [yi ding, er tong, san bao 0001 1353 0059 4827 0005 0202]" resolution for the farm machinery households. "One fix" is that the farm machine households must fix cultivation service targets or production tracts; "two unites" is that the township must unite to supply fuel and oil to the farm machine households, and unify fee collection standards; "three guarantee" is that the farm machine household operations must guarantee quality, quantity and that the work will be done in season. The township must establish farm machine management and service stations, and qualified villages will set up farm machine service teams or provide for farm machine management experts. They will be in charge of such aspects of management and service work as technical services, technical consulting, organizing and directing farm machine production, the signing of farm machine production contracts, personnel training, and organizing fuel and oil supplies and farm machine repair and maintenance.

12513

CSO: 4007/48

HUBEI

## BARLEY PRODUCTION PROBLEMS DISCUSSED

Wuhan HUBEI RIBAO in Chinese 28 Jan 85 p 2

[Article: "Problems in Barley Production Discussed"]

[Text] Barley is no longer widely eaten as a traditional staple grain. Instead its economic value has been rising with its increased use as an ingredient in such processes as brewing beer, making sugar and as animal feed.

However the cultivation of barley has been slowly declining. Take the case of the Jingzhou region in our province that has the biggest area of barley cultivation. Its total barley acreage of 1.92 million mu in 1977 fell to 650,000 mu in 1983, thus decreasing at the rate of 210,000 mu annually. With a slight recovery in 1984, the total cultivated acreage of barley within the region this year is 1.11 million mu. In addition to the drop in the cultivation of barley, there has also been a corresponding fall in the quality of the yield. However at the same time, modern beer breweries are requiring higher levels in the various aspects of barley yield, such as its caloric and amylumic contents, as well as its germinating potential and rate. Moreover, because the production of barley from the various regions has not matched the levels of these requirements, the various beer breweries in the Tianmen and Gongan prefectures, Sha City and Jingmen City have been annually purchasing regular amounts of both barley and malt from outside the province. This is partly because barley consumption is rising as the standards of living rise in the cities. According to the estimate of the department of light industries, the Jiangnan plains are now producing about 35,000 tons of beer and in 2 to 3 years' time, this level will increase to 100,000 tons, thus requiring double the present amount of barley. Therefore to actively seek the increased production of barley that will satisfy demand has already become a pressing problem.

The agricultural department and the rural cadres have given the following three reasons for the decline in barley production: First is the natural decrease in production since barley is no longer a staple grain. The second factor is the unsatisfactory market and economic value of barley. In a normal year, the yield per mu of barley is around 200 catties, and



when compared with wheat, this represents a differential decrease in yield of 80 to 100 catties. In addition, the price of 100 catties of barley by comparison is lower by about 6 to 8 yuan. Therefore the total economic yield of barley is about one-half that of wheat. The third reason for the decline in barley production is that during the past when barley was still a staple grain, it was neglected by the cadres in their focus instead on high-yield staple grains. As a result, neither the growth potential nor any improved breeding of barley was experimented with. With the absence of new improved varieties, even the original variety had decreased in its yield potential.

Comrades of the relevant departments have made the following suggestions regarding the great improvement of both production yield and quality of barley with the goals of matching industrial production development and satisfying market demand:

1. In the increased research into the demand for barley, to begin scientific testing and supply the necessary information. In stimulating the structural production of grains, the planning and organization of barley production should be determined in accordance with the demands.
2. The research sectors of the agricultural department should as quickly as possible begin their work in improving barley varieties. In their work, they may want to cooperate with the outside in order to introduce new scientific technology. They may also want to introduce new varieties from the outside in order to improve the local variety. They will, therefore, benefit the farmers by raising the quality of the varieties.
3. The agricultural departments should also demonstrate widely the superiority of improved varieties in order to greatly popularize the resultant benefits and raise the general level of farmers' understanding of barley cultivation. In addition, these agricultural departments should also recommend the growing of different varieties of barley in accordance with the different local growth conditions.
4. Barley production should continue to be carried on by the units that already provide the grain as production ingredients, while assistance should be provided to other areas with comparatively lower yields.

12740  
CSO: 4007/231

JIANGSU

RURAL COMMODITY PRODUCTION URGED

Nanjing XINHUA RIBAO in Chinese 13 Feb 85 p 2

[Article by Xue Muqiao [5641 2550 2890], of WUXI RIBAO: "Thoughts After Reading Wuxi Rice Market Survey Data: The New State of Expansion in the Rural Commodity Economy"]

[Text] WUXI RIBAO News Agency sent over survey data on the growth of Wuxi Rice Market, and after reading it a new blueprint for urban and rural commercial development unfolded before my eyes. When I was young I witnessed the grand occasion of Wuxi Rice Market's situation as the foremost among the nation's four great rice markets, and then, when the People's Republic of China was first established, I punished the "grain tigers" who drove up grain prices. Now, when faced with this dynamic, regenerated rice market, exactly what are my impressions?

Just after liberation, grain and gauze became the major objects of opportunistic investment for speculative buying and hoarding of goods to drive up prices. In order to stabilize commodity prices and safeguard the people's livelihood, the state had to take control of the supply of goods. At that time the state took control over the majority of marketed grain by imposing an agricultural tax paid in grain and by supplying and marketing cooperative purchasing. At the beginning of the First Five-Year Plan, because of a rapidly expanding urban population and a failure of grain supplies to meet demand, in order to guarantee grain rations for the cities and for rural economic crop areas it was absolutely essential to start up a state grain purchase and rationing system and completely encompass grain procurement within the state plan. However, due to overly strict state supervision of agricultural production and also to declining grain prices, although "payment was made in grain" and the diversified economy was squeezed out, grain supplies remained tight and grain rations for many peasants were insufficient. It was impossible to avoid going hungry in the busy season, eating sparingly in the slack season and using "melon and vegetable substitutes" to overcome difficulties. In areas where there was surplus grain, although the peasants had excess grain, they were either not permitted to transport it to the cities to sell for fear of affecting the state grain purchase quotas were filled.

After the 3d Plenary Session of the 11th Central Committee, due to the reform of the agricultural management system and rising grain prices, grain production expanded by leaps and bounds at an unprecedented rate, rising suddenly from 600 billion jin produced in 1978 to 800 billion jin produced in 1984. The production situation has changed and our procurement policies must change along with it.

In the 1950's and 1960's the state had to purchase a minimum of 80 billion jin of grain from farmers annually in order to guarantee market supplies. In the 1970's, even though state grain purchases reached approximately 90 billion jin, due to increased urban population the supply of grain could not be assured and it was necessary to import grain from abroad (in the highest year we imported 15 million tons, or 30 billion jin) as a supplement. At the beginning of 1984 the amount of grain purchased by the state exceeded market needs and reserves rapidly increased. Consequently the CPC Central Committee and the State Council stipulated that in 1985 we are to progressively eliminate the system of state monopoly purchasing and marketing of grain. The state will only purchase 150 billion jin and the surplus grain will be left to the farmers to market themselves. In 1984 China's grain output exceeded 800 billion jin, and the grain ration for 800 million peasants (including those peasants dependent upon grain resold by the state to the production area) was less than 400 billion jin. Seed and fodder for personal use (not including commercial feed used by specialized households) amounted to approximately 100 billion jin, and an additional 150 billion jin was purchased by the state. There was an additional 150 billion jin that had to be sold by the farmers themselves. A further example from the past is the way a farmer would carry 200 to 300 jin of grain to sell in the nearby city, but it was certain that some 150 billion jin of grain could not be sold. To suit the current state of affairs we must have open trade in large quantities and carry on commerce in grain between the various provinces and cities. This is the major reason for the emergence of Wuxi Rice Market (and also markets in Wuhu and other areas).

The present trend in rural economic development is toward specialization. In the past, the vast majority of farmers all wanted to grow a little grain to ensure their own grain rations. From now on, grain production must also specialize, and only 20 to 30 percent of the farmers nationwide must cultivate grain, while the remainder of the population can engage in the diversified economy. In addition, a further division of labor must appear between regions: some regions will primarily cultivate grain; some will grow mostly cotton, sugar crops and other cash crops; and some will focus on animal husbandry, fishery and forestry. Consequently, the 800 million peasants must also engage in internal commodity exchange. If we continue to use the method of state monopoly grain purchasing and marketing, and if the people of areas growing economic crops or engaged in animal husbandry, fishery, forestry or other production activities all are supplied with grain by the state through resale to the production areas, this system will be increasingly unfeasible as time goes on. The development trend in the future must be toward commodity exchanges between households and between regions, with surpluses

and deficiencies to be adjusted by commercial organizations. The change from state monopoly purchase and marketing to commodity exchanges is the trend that must emerge for the commodity economy to expand continuously. Therefore, I believe that the rice market is a seedling that has emerged in response to the times, and we should protect it and encourage its steady development in many regions throughout the country.

Is it possible that the resurrection and growth of the Wuxi Rice Market will lead to capitalism, or even to "grain tigers?" This is absolutely impossible. Survey data illustrate that the principal participants in rice market trade are grain bureaus and supply and marketing cooperatives. Private commerce represents a very small proportion of the business. Because grain is a relatively cumbersome commodity and its transport is difficult; because modern transport tools such as railroads, steamships and automobiles are mostly controlled by the state; and because private individuals have only a few boats and automobiles and their transport capacity is meager, private commerce can only act as a supplement to state-operated commerce and can in no way usurp its leading position. Of course, what is referred to as state-operated commerce does not mean the general food sector, rather it means the provincial, municipal and county grain bureaus, as well as the local collectively owned supply and marketing cooperatives. In the future, townships in Commodity Grain Regions may also establish grain companies that will adjust for surpluses and deficiencies, based not on state monopoly purchase and marketing plans and prices, but on market needs and prices. Right now, market prices in many Commodity Grain Regions are generally higher than state procurement prices and slightly lower than state procurement prices plus bonuses for excess sales. This kind of pricing cannot bring about grain price increases, nor can prices fall to the point that if the state does not buy grain the farmers will be hurt. This is beneficial both to the state and to urban people continue to support the fixed rationing system, the supply of goods does not fully meet the needs of the people. In particular, it does not allow people to live well, as opposed to merely getting by, and it is still necessary for commodity exchanges to be conducted through the marketplace. In addition, grain markets can spur the growth of the food processing industry so that the benefits are even greater.

Can we establish other market trading in addition to that conducted for grain? Think back to the time of the War of Resistance Against Japan, when there were a certain number of relatively large cotton markets in the northern Jiangsu base area. In the future, after the cotton used in textile mills is changed over from centralized distribution to individual purchasing, there is the possibility that some large cotton producing regions may set up cotton markets. During the War of Resistance Against Japan several market towns in northern Jiangsu had dealers in grain, cotton and vast numbers of sundry items, so that they were very active. In the 1950's, following state monopoly purchasing of grain and cotton, these large dealers were eliminated, and after the socialist reforms were completed most small shops also disappeared. In the past few years I have repeatedly returned to the areas where the New Fourth

Army was stationed, such as Yunling Village of Jing County in southern Anhui and Donggou and Yilin Villages of Yanfu District, northern Jiangsu. These places have all become cold and cheerless because their many shops have been turned into residences and their gates are tightly shut. The market towns of the past have been replaced by rural and urban commodity exchange centers, and the role of market towns as commercial centers has largely disappeared. It has reached the point that it is difficult for farmers to sell (agricultural products) and difficult for them to buy (industrial goods), and this is obviously unsuitable for large-scale expansion of the commodity economy. Thus, we must restore the role of market towns as commercial centers and we must have a reform of the commercial management system in order to be compatible with the new state of grand expansion in the rural commodity economy. This is my personal opinion, which I put forward for discussion by all.

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CSO: 4007/267

JIANGSU

BRIEFS

NET COTTON PROCUREMENT REGULATIONS--According to a circular from the provincial department concerned, Jiangsu will implement the following new cotton procurement regulations in 1985: 1) State monopoly procurement is to be changed to contract quota procurement. Prior to the spring plowing, supply and marketing cooperatives at all levels are to sign quota contracts with cotton-growing households and production units, these contracts to be based on the state cotton procurement quota and determined once each year. The various localities may not exceed the state-stipulated cotton procurement quota. Contract procurement is not to be arranged for those who did not cultivate cotton for sale to the state in 1984. 2) All cotton under contract procurement quotas is to be purchased according to current state-stipulated proportional pricing methods and policies. Cotton not included in the procurement quota may be priced according to the market. 3) To loosen up and stimulate the supply of cotton, planned distribution is to be changed to purchase by choice. For this reason, cotton-use quotas for spinning are no longer to be stipulated. Each locality must actively take the initiative to develop cotton marketing activities directed at user households and set up convenient conditions for user households to select their purchases. At the same time, we must increase cotton exports in every way possible, strive to expand the market for cotton wadding and satisfy the needs of the masses. [Text] [Nanjing XINHUA RIBAO in Chinese 14 Feb 85 p 1] 12510

WINDFALL PROFITS FOR FARMERS--Data from the Jiangsu Bureau of Statistics' Survey of Rural Residential Revenues and Expenditures indicates that Jiangsu farmers' incomes increased by a large margin in 1984. The average per capita net income reached 447.1 yuan, an increase of 90 yuan and 5 jiao, or 25.4 percent, over the previous year. This represents a rise of 292.1 yuan, or 1.9 times, over the figures for 1978. Of this net income, income from household operations represented 72.6 percent, an increase of 33.8 percent over the previous year; income from united collective operations represented 19.4 percent, an increase of 33.2 percent over the previous year; and other non-borrowed income represented 7.8 percent. The reasons for the largescale increase in 1984 farmers' incomes are fourfold: 1) Township enterprises expanded, the number of rural people engaged in industry increased and wages and bonuses rose. The average per capita income received by residents of

rural households directly from commune and brigade enterprises increased by 21 yuan and 9 jiao over the previous year, representing 24 percent of the total increase in net income. 2) The incomes of rural households engaged in construction, transport, processing and production labor services increased greatly. 3) There were grain production increases, as well as increases in excess and negotiated grain purchasing. 4) The cost of production decreased and economic benefits improved. In 1984, production costs represented 27.1 percent of gross income for household operations, a decrease of 1.6 percent from the figure for 1983. Consequently, there was a corresponding increase in farmers' net incomes. [By the Jiangsu Bureau of Statistics Communications Group] [Text]. [Nanjing XINHUA RIBAO in Chinese 14 Feb 85 p 1] 12510

AQUATIC PRODUCTS PROCUREMENT ABOLISHED--Recently, the Jiangsu Provincial Government decided that beginning in 1985, all aquatic products within the province will be reallocated to the No 3 category of agricultural products. As a result of this policy, the former quota procurement of these aquatic products will be completely abolished within the whole province without any exceptions. At the same time, however, the former amount that is determined by the state of aquatic production within Jiangsu Province will be upheld and, therefore, last year's level of supplies will be kept up in principle. [Text] [Beijing NONGMIN RIBAO in Chinese 29 Jan 85 p 2] 12740

CSO: 4007/231



JIANGXI

AGRICULTURAL SPECIALIZED HOUSEHOLDS VOICE PREFERENCES

Beijing NONGMIN RIBAO in Chinese 29 Jan 85 p 2

[Article: "Specialized Households Voice Preference"]

[Text] Comrade Editor: During the New Year, we went to visit some rural specialized households. In general they all expressed similar praises as follows: The legislation of the issues that were contained in Central Document No 1 during the last few years has resulted in the consideration of the wishes of farmers and, as a result, it also helped increase farmers' riches. Economic conditions in the rural areas have, therefore, also been thriving. At the same time, however, these farmers also expressed hope to see the further development of commodity production and the greater stimulation of the rural economy. Accordingly, they have raised the following hopes and suggestions:

1. They hope that in the following areas, namely grain production, commercial enterprises, the concerns that deal with supplies, or trading with the outside as well as material resources, those units that are responsible will be able to sign contract procurement agreements directly with the specialized households. As a result, the area of commodity production will be greatly developed.
2. They hope that the various technical personnel of the rural timber, animal husbandry and fisheries department will visit the rural areas to help carry out the responsibility system. In their technical work of preventing and curing illnesses and diseases, these personnel will also thereby help raise the general economic level.
3. They hope that industrial and engineering enterprises will emphasize the development of such machinery as that used in regulating production, small food-processers, animal feed grinders and small motor starters. All this machinery will be useful to the agricultural industrial households.
4. The farmers hope that the prefectures or rural villages will be establishing service centers (or commercial companies) that will provide timely information or act as procurement, selling or management agents for the agricultural specialized households.

5. They hope that insurance companies will also be coming to the rural areas to establish insurance policies on plow oxen, live hogs, domestic fowl, roadmaking and various machinery. Thus, farmers will be able to cut their financial losses in case of accidents or natural disasters.
6. They hope to train cadres among the specialized personnel in order for these qualified members to join the party.
7. They hope that more classes for technical training will be organized in order to advance the levels of production technology and management control.
8. They hope that the agricultural specialized households will be taxed at the normal rate, rather than at higher rates.
9. They hope that the higher administrative levels will determine standards for specialized households and also issue "rural specialized households certificates." Thus these households will be greatly facilitated in their work of transactions and trading.
10. They hope that some of the industrial products that are essential in the cities will also be made available for consumers in the rural areas, particularly the famous makes of bicycles, sewing machines, electric fans, tape recorders, and television sets.

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CSO: 4007/231

JILIN

#### DEVELOPMENT OF ANIMAL HUSBANDRY STRESSED

Beijing NONGCUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 1, 5 Jan 85 p 13

[Commentary by Gao Di [7559 3695], Secretary of CPC Jilin Provincial Committee: "Take the Development of Animal Husbandry as Breakthrough Point To Readjust Rural Enterprise Structure"]

[Text] During the historic shift faced by our agricultural production, there has appeared in Jilin the noteworthy matter of the change from a grain shortage to a grain surplus. How to consume this surplus and change this grain advantage into economic advantage is an urgent question. Once this question is well disposed, our province will be able to continue to develop; if not, it may back down. This is a new question emerging under a fine situation that we must approach with the spirit of responsibility to our party and our people.

According to experience both inside and outside China, the fundamental outlet for solving such surplus grain is to energetically develop animal husbandry industries and thereby convert grain into meats, eggs, milk, and fish on the spot. Developing animal husbandry enterprises is the most realistic, most effective approach that also consumes the most grain. The development of animal husbandry requires the support of the state, but it does not require large amounts of investment as it depends mainly on the masses. If our province attempts to realize every person raising a pig in the countryside, the whole province can raise 15 million pigs. With each head consuming 400 jin of food, that would amount to 6 billion jin. Each milk cow consumes 1 ton of food; when our milk cows are developed to 1 million head, they can consume 2 billion jin of food. In those economically developed countries every person has on the average 2,000 jin of food; the greatest amount is found in Canada, where every person has 4,000 jin. Per capita grain consumption in China is but 700 jin; Jilin ranks first among all the provinces, at 1,302 jin. Our levels of grain production and consumption are relatively low in the world. Our present surplus is only relative and on a low level; it is a surplus, but it is one in a country in which animal husbandry industries and industries with grain as their raw materials have not yet developed, and one during a transitional period in the readjustment of our production structure; it is a temporary phenomenon. Once our production structure and our consumption structure undergo a change, when our animal husbandry industries are

developed, and when our grain and other industries are developed, there will be no grain surplus but again a shortage. We must stand on the strategic plane in grasping animal husbandry and take its development as the breakthrough point to readjust the structure of rural industry.

"The people take food as their supreme authority." For many years, in order to solve the food problem for our urban and rural people, agriculture has been tasked with emphasizing grain production; this was necessary at the time. Today, the grain problem is already solved, and food has become surplus, so we must now solve our meat problem. In the past, when we grasped agriculture we grasped grain; from now on we must focus on animal husbandry. The situation has changed, the contradictions have changed, so the focus of our work must also change.

Will placing priority on animal husbandry affect grain production? No, because grain is the foundation of agriculture and also the foundation of animal husbandry industries; when it cannot make a go of itself, and there is not enough animal feed, animal husbandry can hardly develop. Animal husbandry and grain are therefore consistent with each other and not in contradiction. Properly administering animal husbandry industries not only will not affect grain production but will actually promote it. On the other hand, if we do not develop animal husbandry industries and our grain cannot be consumed, it is bound to sabotage grain production. From this sense, animal husbandry is a continuation of grain production and also the beginning of food re-production.

The development of animal husbandry industries must be supported by industry. Without the development of modern feed industries there can be no development of grain production, in which case animal husbandry industries can hardly expect great development. The development of animal husbandry industries goes hand in hand with the development of industry.

The development of animal husbandry enterprises must set its sights on grain conversion. Where food happens to be most abundant, most animals should also be raised; our emphasis must be placed on developing animal husbandry in the agricultural regions. The base of grain production should also be the base of meat production; it must consume the food it has itself produced. Animal husbandry industries in the cattle-raising regions should develop toward refinement and toward in-house and semi-in-house raising. It is necessary to energetically develop specialized cattle-raising households from existing general animal husbandry households. Running family cattle ranches, expanding their scales, and improving their results are the keys to raising their commodity rate and the direction in which animal husbandry enterprises should be developed.

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CSO: 4007/205

LIAONING

AFFORESTATION WORK PRODUCES RESULTS

Shenyang LIAONING RIBAO in Chinese 19 Sep 84 p 1

[Article: "Afforestation Increases 27-Fold in Liaoning Province in 35 Years; Forest Cover Ratio Increases from 12.9 Percent to 25.1 Percent"]

[Text] The forestry construction situation in Liaoning Province is gratifying. More than 39 million mu of cultivated forests have been created in the 35 years since the founding of the nation, which is a 27-fold increase over the early post-liberation period; the forest cover ratio has increased from 12.9 percent to 25.1 percent. The depleted forests, slash areas and large stretches of barren hills and mountains inherited from the old China are nowadays green, luxuriant and full of life.

All localities throughout the province have stressed afforestation, actively transformed, managed and protected the existing forests, and fixed the forestry and cultivation structure in line with the principles of suiting measures to local conditions, fortifying against calamity, long-range planning and rational distribution. In order to develop the strengths of the numerous plains areas and river banks, which have ample moisture and fertile soil, we planted fast growing, high yielding forests and set up a large area of 890,000 mu of new commodity timber bases. In the dangerously dry areas of wind-blown sand in the area of Fuxin, Junzhou, Chaoyang and Tieling Prefecture in the northwest, we have planted 4.8 million mu in the "san bei [0005 0554]" region to a farmland protection forest system, a green and luxuriant crisscross network of farmland and forests, like a "great green wall" which stops the blowing sand and protects the farmland. At the same time as establishing the cultivated forests in the eastern mountainous areas of Dandong, Benxi and Fushun, we adopted various measures to speed up the transformation of the damaged forest remnants, devoted major efforts to protecting and tending natural secondary forests, and raised the forest cover ratio here to 56 percent. The amount of forest trees here accounts for more than 80 percent of that for the province as a whole; timber output amounts to 83 percent of the provincewide total and contributes to the development of industrial and agricultural production throughout the province.

Since the Third Plenary Session of the 11th Party Central Committee all localities have conscientiously implemented the various forestry policies of the Party, and the state, collectives and individuals alike, from the cities to

the rural areas, have further raised the high tide of planting the countryside to trees and crops, the extent, speed and quality of which is unprecedented. At present, more than 90 percent of the counties (and districts) in the province have completed the "three fixed quotas" of forestry. More than 14.8 million mu of private hill plots have been divided among 1.6 million peasant households; there are more than 247,000 mu of peasant contract responsibility hills and 130,000 of the "two households" in forestry. This year 97.3 percent of the provincewide afforestation quota for the whole year was completed in the course of the spring; in this, afforestation by the "two households" amounted to 65.8 percent of the total area afforested throughout the province.

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CSO: 4007/48

LIAONING

AGRICULTURAL SPECIALIZATION STRESSED

Beijing NONGYE JISHU JINGJI [ECONOMICS FOR AGRICULTURAL TECHNOLOGY] in  
Chinese No 12, Dec 84 pp 17-19

[Article by Mao Bingsheng [3029 4426 3932], of the Department of Agriculture and Industry, Yingkou County Party Committee: "Progressive Agricultural Specialization and Concentration of Land in the Hands of Farming Experts"]

[Text] As of the end of October 1984, there were more than 50 villages in Yingkou County, Liaoning (representing 17 percent of the total number of villages in the county) that had implemented specialized contracts. Agricultural, animal husbandry, sidelines, fishery, industrial and commercial sectors are all represented, as are various kinds of grain, cotton, oil, vegetable and fruit crops. The household (or the small group) is the contracting unit and household (or small group) economic specialization has been put into effect. In those villages where specialized contracts have not been implemented, after the land was contracted out to households based on their average populations, land transfers began to take place because there were some labor households that were incapable of working the land and some farming households that desired to leave the land to do manual work or to engage in commerce. In more than 170 villages throughout the county, representing 50 percent of the total number of villages, land transfers have taken place. Approximately 3 percent of all rural households in the county have transferred land. Due to a shift to operation of other enterprises, in Shengli Village some 80 farmer households have transferred away their land, reducing the number of farming households in that village from the original number of 430 to 350. In Boluoshi Village, 42 farming households have shifted to other enterprises and transferred away their land, reducing the number of farming households in that village from the original number of 420 to 378. Generally the households transferring land transfer all contract land, the minority of them doing so for less than a year and the majority stipulating that the transfer may be continued after the original several-year period if both parties agree. However, it is impermissible for land to be rented or sold. The result of the implementation of specialized contracts and the transferral of land is that land is being concentrated to a large extent in the hands of farming experts. The area of cultivated land already concentrated in the hands of farming experts throughout the county has reached 140,000 mu, or 20 percent of the total area of collective cultivated land in the county. There have already emerged 22,896 specialized



households of all types in the county, representing 18.6 percent of the total number of rural households. Of these, there are 10,237 specialized farming households, representing 83 percent of the total number of rural households in the county [as published].

The scale of land operated by specialized farming households is generally over 15 mu, and this area may reach 120 mu at its highest; the scale of land operated by specialized forestry households runs to over 100 mu, rising to 600 mu at its highest; the scale of freshwater breeding area operated by specialized fishery households runs to more than 20 mu, reaching 60 mu at its highest; and the scale of operations in specialized animal husbandry households is calculated based on the quantity of livestock being reared: for fowl this is generally over 1,000 head and for swine it is 100-plus head. There are 89 diverse specialized villages that have arisen, some 26.3 percent of the total number of villages in the county. The 400,000 mu of cultivated land in the 5 townships of Western Liaoning have been combined into one tract on which there is specialized cultivation of commercial paddy, so that regional specialization in paddy production has been brought about on a rather large scale.

The achievement of progressive land concentration in the hands of farming experts and of specialized agricultural production is conditional. The reason that these states have been able to emerge quickly in developed rural areas is that the conditions for them are basically ripe.

1. Rural industry is developed on a large scale, a rural economic structure composed of a combination of agriculture, industry and commerce is established and produces a higher industrial output value than agricultural output value and this brings about a large-scale shift in the farming population. Yingkou County has a farming population of 520,000, a cultivated land area of 786,000 mu and a per capita ownership of only 1.5 mu of cultivated land. Only after the development of industry could it be possible for an outward shift of the rural labor force and a progressive concentration of the land in the hands of farming experts. For example, in Yaotun Village the ratio of industrial to agricultural output value in 1982 was 15:85. Twenty percent of the village labor force worked in industry and 80 percent were engaged in agricultural output value in 1982 was 15:85. Twenty percent of the village labor force worked in industry and 80 percent were engaged in agriculture. In 1983 the village went in for industry in a big way and the ratio of output values changed to 60:40, the percentage of the labor force working in industry rose to 40 percent and the percentage engaged in agriculture fell to 60 percent. Thus, specialized production began to appear in industry and agriculture in this village. Along with specialization, labor productivity and the percentage of marketable products also rose notably. Comparing 1983 with 1982, throughout the village agricultural net incomes rose by 59.4 percent; net incomes for industry, sidelines, forestry, animal husbandry and fishery rose by 196.9 percent; labor productivity for all personnel rose by 157 percent; and the percentage of marketable agricultural products increased by 40 percent. In Qinghuayu Village there is only 0.65 mu of cultivated land per capita. Agricultural resources are very scarce and when the village was engaged only in farming there was a large labor surplus. Since 1978 this

begun to set up industries and has shifted 70 percent of the agricultural labor force to industry. In 1983 the ratio of agricultural output value [as published] reached 9:1, not only resolving the problem of surplus agricultural labor but also promoting the achievement of specialization in agricultural production. Comparing 1983 with 1977, the gross industrial and agricultural output value for the village rose by 327 percent. Within this increase, the agricultural output value rose by 300 percent, the industrial output value rose by 330 percent and the commercial output value rose by 360 percent. The percentage of marketable products for cotton, oil crops and fruit--the major agricultural products--increased by 70 percent, 12.7 percent and 44.9 percent, respectively. The annual production of limestone and lime, the major industrial products, reached 270,000 tons. From this it is apparent that rural industrial development accelerated the shift in the farming population and this shift promoted land concentration in the hands of farming experts and specialization in agricultural production.

2. Efforts to develop a division of labor in agricultural composition, regulation of the proportional relationships among agricultural components--that is, among agriculture, forestry, animal husbandry, sidelines and fishery--and achievement of a shift in the farming labor force within agriculture itself but away from cultivation and toward these other components is extremely important in order to bring specialized agricultural production to those areas which lack the conditions for large-scale industry. Marx said that "Division of labor is the condition for the existence of commodity production."<sup>1</sup> Lenin also said that "Social division of labor...is the foundation of the commodity economy."<sup>2</sup> If agricultural production is to shift to specialized commodity production in China, then we must make social division of labor the condition of its existence. Those areas which lack the conditions to engage in industry to a large degree must, in expanding the social division of labor, stress a division of labor among agricultural components and establish an agricultural production composition in which farming, forestry, animal husbandry, sidelines and fishery are all well developed. For instance, where water area suitable for fishing is relatively extensive along riverfronts, people strive to develop fishery and some of the farming people specialize in contracting fishponds to raise fish. They thus become specialized fishery production households and promote that specialization. In the mountain areas of Yingkou County there is a lot of uncultivated mountain land suitable for forestry and animal husbandry. Some of the farmers contract uncultivated mountain land there for afforestation and for expansion of the sheep-raising industry. They thus become specialized forestry households or sheep-raising households and propel forestry and animal husbandry toward specialized development. Now, as the specialized forestry, animal husbandry and fishery households that still retain a small quantity of cultivated land develop to a certain stage, they will surely request to transfer away their cultivated land. This will bring about progressive concentration of cultivated land in the hands of farming experts and propel cultivation in the direction of specialized development. As a verification of this fact, there are currently some large specialized fishing households that have already transferred away their cultivated land.

3. As for using modern scientific and technical agriculture and fixed capital, if we do not use the former and we do not implement technological reform in traditional agriculture, then land concentration is unnecessary. If there is no fixed capital, then it is also impossible to guarantee the achievement of technological reform in agriculture. When discussing the development of Russian capitalism, Lenin said that "On the one hand, a large quantity of capital is necessary in order to employ machinery, and thus this is only within the means of the proprietors of large enterprises. On the other hand, one must use machinery when producing large quantities of agricultural goods in order to avoid losing money. Thus, large-scale production is an essential condition for the use of machinery."<sup>3</sup> Today, it is essential that we adopt modern scientific and technical agriculture in order to create a high rate of labor productivity based on land concentration and to ensure the rapid growth of agricultural production. On a basis of traditional agricultural technology, where there is reliance on manual labor and traditional experience to engage in agriculture, it is impossible and unnecessary to put specialized production into practice on a large scale. In accordance with the relations of production, it is necessary to be suited to the patterns governing the nature of the forces of production. Traditional agricultural technology is suited to operation on dispersed land, whereas modern agricultural technology is suited to operation on concentrated land. Consequently, it is only necessary and possible to carry out land concentration if we adopt modern scientific and technical agriculture. The scale and degree of land concentration must also be decided by the degree of modern scientific and technical agriculture. To adopt modern scientific and technical agriculture, on the one hand there must be national development of scientific agricultural research and agricultural industries to provide agriculture with scientific technology and equipment. On the other hand, the villages themselves must set up industries and commercial enterprises to accumulate capital. For example, Qinghuayu, Jiangnan and Yaotun Village have all equipped agriculture in this way, laying a material technological foundation for land concentration and agricultural specialization. Since Jiangnan Village established its industries it has accumulated a total of 1.5 million yuan and withdrawn 500,000 yuan from this to invest in agriculture, setting up a scientific research team, drilling 14 mechanized wells and purchasing 10 tons of plastic film for agricultural use. In this village 66 percent of the total area of cultivated land is irrigated and 40 percent of it has a top dressing of plastic film, 88 percent of the total power used in agricultural production is produced by agricultural machinery and 60 percent of the total agricultural investment comes through material invested by agricultural industries.

Specialization has been basically achieved in agricultural production. In Yaotun Village 100 percent of the fields are irrigated, plowed by tractors, fertilized with chemical fertilizers, treated with chemical pesticides and have plastic film top dressings; 90 percent of the power used in agricultural production throughout the village is produced by agricultural machinery; and 78 percent of the total material invested in agricultural production comes from material investment by agricultural industries. Specialization has been achieved in agricultural production. As a result, the average per-mu grain output is as high as 1,350 jin, and gross agricultural income rose by

70 percent in 1983 over 1978. In villages where the pace of modern agricultural transformation is quite rapid, the current outfit of agricultural production in any one year is composed of more than 50 percent industrial material investment (including fertilizer, chemical pesticides, plastic film, diesel oil, gasoline and so forth). 2) More than 50 percent of the total power used in agricultural production is machine power. This kind of technological agricultural outfit inevitably requires that land be worked on an appropriate scale and that there be progressive achievement of land concentration and agricultural specialization. Consequently, land concentration in this kind of village is quite rapid and agricultural specialization is begun rather early.

To sum up, we can say that large-scale expansion of rural industry is an external condition that absolutely cannot be minimized if we are to shift a large portion of the farming population and bring about land concentration and specialization in agricultural production. We can also say that large-scale expansion of forestry, animal husbandry and fishery, as well as of agriculture outfitted with modern scientific technology, is an internal condition that absolutely cannot be minimized if we are to bring about land concentration and agricultural specialization. These factors have a decisive affect on land concentration and agricultural specialization; they are its determinants and prerequisite conditions.

The inevitable trend of Chinese agricultural development is for land to be progressively concentrated in the hands of farming specialists and for the achievement of specialization in agricultural production. With the contractual output system and the addition of specialization, there are even broader prospects ahead for agriculture. However, the questions of when the various regions and villages should actually achieve it and how they should divide up the steps in that process must be decided by the actual state of development in the productive forces of that locality and the actual needs and possibilities of expansion in its rural commodity production. We must respect objective conditions and we must respect the wishes of the masses. When the proper conditions do not exist we can only strive to create those conditions; we must not spoil things with excessive enthusiasm. In localities where the proper conditions exist, we also must not implement the process through administrative decrees or arbitrary uniformity.

#### FOOTNOTES

1. Karl Marx, "Capital," Vol 1, "The Complete Works of Marx and Engels," Vol 23 p 55.
2. V. I. Lenin, "The Growth of Capitalism in Russia," in "Selected Works of Lenin," Vol 1 p 162.
3. V. I. Lenin, "The Growth of Capitalism in Russia," in "The Complete Works of Lenin," Vol 3 p 197.

12510  
CSO: 4007/273

SHANDONG

PROBLEMS IN SHANDONG'S COTTON INDUSTRY DISCUSSED

Beijing NONGYE JISHU JINGJI [ECONOMICS FOR AGRICULTURAL TECHNOLOGY] in Chinese No 12, Dec 1984 pp 29-31

[Article by Yao Yanghong [1202 9486 3163], Wang Xiyue [3769 1585 1878] and Ma Huaijun [7456 2037 0689], of the Shandong Department of Agriculture: "An Inquiry into the Problem of an Outlet for Shandong Cotton"]

[Text] Shandong Province is China's most important cotton producing region. It is estimated that the 1984 gross provincial cotton output will reach approximately 30 million dan, which is about one-third of the gross national cotton output. However, due to the excessive area of land under cultivation with "Shandong Cotton No 1" throughout the province, the quality is poor and the price is high. In 1983, problems of unmarketability and overstocks emerged and claimed a large quantity of capital. After the new 1984 cotton crop is harvested, this burden will continue to worsen. In order to study and inquire into an outlet for cotton production, we have applied technical economic theory and methods to compose the following preliminary analysis of the economic benefits of Shandong cotton production.

I. Causes for Unmarketable Cotton

1. Limited Demand in Domestic and Foreign Markets

Looking at the domestic market, in the 30 years from the founding of the PRC to 1981 China's cotton supply always fell short of demand. Every year we had to use large quantities of foreign exchange to import cotton to meet the needs of the textile industry. This state of affairs was basically reversed by 1982. According to statistics, the gross national cotton output for 1983 was 92.74 million dan, but only 70 million dan of raw cotton--70 percent of the total amount purchased--were sold nationwide, so overstocks appeared. In addition, because the cost of synthetic textiles fell, the cost of pure cotton textiles rose and led to a drop in the production of the latter. It is estimated that cotton used in spinning will decrease by more than 8 million dan in 1984 as compared with 1982.

Looking at foreign markets, the quality of Shandong cotton is poor and its price is high, so it lacks the ability to compete as an export. At present, a large proportion of the cotton we sell abroad is low-grade cotton, and the selling price of grade-6 cotton is generally 50 percent less than that of grade-1 cotton.

## 2. The Price Ratios Between Grain and Cotton Are Inequitable

According to an analysis of pooled cost accounting data for Shandong Province from 1980 to 1983, the following figures hold: cotton earns a profit of 153.74 yuan per mu and 2.74 yuan per labor day, with a cost to profit ratio of 124.9 percent; wheat and cotton earn profits, respectively, of 16.35 yuan and 24.13 yuan per mu, and 0.75 yuan and 1.68 yuan per labor day, and their respective cost to profit ratios are 22.7 percent and 53 percent. This is the same as to say that per-mu cotton profits are 9.4 and 6.4 times as high, profits per labor day are 3.7 and 1.6 times as high and cost to profit ratios are 5.5 and 2.4 times as great as those for wheat and corn, respectively. To increase their incomes, farmers inevitably expand their cotton-growing area. It is difficult to succeed in using administrative methods to limit this strictly.

## 3. Cotton Grading Standards Are Inequitable

Current cotton grading standards set base prices primarily on fiber staple length, color and sheen, degree of maturity, impurities and other external qualities. The cotton's single-fiber strength, fineness, breaking length and other internal qualities are not stressed, yet these are precisely the major factors affecting yarn quality and count. As a result, current cotton grading standards cannot price cotton in a manner that is consistent with its actual quality. Consider "Shandong Cotton No 1" for example" fiber staple length reaches 30 mm, maturity is relatively consistent, color and sheen are good and it can be priced at the high "top grade" price, yet its fibers are coarse and weak and its breaking length is a mere 19.62 km. Therefore, it can only be used as lower grade cotton and spun into low-grade cotton yarn, consequently increasing production costs in the textile industry. Simultaneously, it decreases the ability of raw cotton to compete for sales in domestic and foreign markets.

## II. Several Plans for Outlets to Dispose of Cotton

Plan No 1: Lower the cotton purchase price and correspondingly lower the retail price of cotton goods to stimulate an increase in consumption. This kind of plan would reduce the economic incomes of the many cotton farmers, so it would not be easy for them to accept. It would also be difficult to carry out, so we cannot choose this method.

Plan No 2: Popularize superior varieties, increase cotton quality, develop markets and improve our ability to compete in foreign and domestic markets. However, agricultural and industrial sectors have different opinions on what particular kinds of improved varieties should be popularized.

The agricultural sector advocates using "Shandong Cotton No 6" to replace "Shandong Cotton No 1," for the following reasons: 1) The quality of "Shandong Cotton No 6" is higher than that of "Shandong Cotton No 1." For example, "Shandong Cotton No 6" has a single-fiber strength of 3.7 g, which is 0.24 g greater than that of "Shandong Cotton No 1"; its staple length is 32.5 mm, or 2.5 mm longer than "Shandong Cotton No 1"; its fineness measures 5,843 m/g, or



173 m/g greater than "Shandong Cotton No 1"; and its breaking length is 21.62 km, or 2 km longer than "Shandong Cotton No 1." 2) Output is higher. According to 2-year regional trials in 12 locations across the province, "Shandong Cotton No 6" produced 15.3 percent higher yields than did "Shandong Cotton No 11". Because the fiber staple length of "Shandong Cotton No 6" averages 2.5 mm longer, its price evaluation should generally be raised by one grade and the textile industry should spend approximately 9 yuan per dan of raw cotton. However, according to the results of small-scale spinning trials and physical inspections, raw "Shandong Cotton No 6" varies greatly in quality. Some of it can be spun into 40-count yarn and some can only be spun into 23-count yarn, which hardly differs from the case for "Shandong Cotton No 1." Consequently, the textile industry does not agree with large-scale expansion of its cultivation.

The industrial sector advocates popularization of the new "2352" variety of cotton to replace "Shandong Cotton No 1," for the following reasons: 1) The internal quality of "2352" is good and it can be spun into high-grade yarn. According to measurements, "2352" staple length is 32.6 mm, which is 2.6 mm longer than that of "Shandong Cotton No 1"; its single-fiber strength measures 4.12 g, or 0.66 g more than "Shandong Cotton No 1"; fineness measures 6,282 m/g, or 613 m/g more than "Shandong Cotton No 1"; and its breaking length is 25 km, or 5.33 km greater than "Shandong Cotton No 1". Quality is also relatively stable; its quality variation coefficient is currently the smallest of any cotton variety in the province. It can be spun into 42-count yarn, quality indices can reach 2,505 and the quality of cotton goods produced from it conforms to state-stipulated standards. 2) Because the color and sheen of "2352" is somewhat deficient, according to current grading standards it is evaluated somewhat lower than "Shandong Cotton No 1". This can lower the cost of raw materials in spinning without affecting the quality of the yarn. Consequently, it is rather welcomed by the textile industry. However, the results of regional trials show that "2352" produces an average of 146.6 jin of ginned cotton per mu, which is 11.6 percent less than is the case for "Shandong Cotton No 1". Under current grading standards, popularization of this variety of cotton would reduce cotton farmers' incomes and thus would not be easily accepted by them.

Plan No 3: Revise cotton grading standards to enable the price of cotton to reflect more accurately its real quality. Cotton grading standards currently in effect primarily use external qualities as the grading criteria for grades 1 through 7, and this cannot completely reflect the real quality of the cotton. We should use internal quality indicators such as strength, fineness, breaking length and maturity in addition to external quality indicators such as staple length, color and sheen, moisture content, impurities and ginned quality as the standards for grading and pricing. We should adopt a method that combines variety and external quality standards to evaluate grades and set prices. The price may be set lower for high-yield varieties that are deficient in internal qualities, and it may be set higher for low-yield varieties that are superior in internal qualities. In this way we can satisfactorily resolve the problems involved in using quality to determine price, and we can also aid the development of superior quality cotton.



According to trial technical and economic agricultural calculations and analysis, we may revise quality indicators for particular cotton grades in the following manner:

1. Cotton having a fiber staple length of 29 to 33 mm, strength of greater than 4 g, fineness of more than 5,500 m/g and a breaking length greater than 23 km should be evaluated as a superior variety.
2. Cotton having a fiber staple length of 25 to 29 mm, strength of 3.7 to 4 g, fineness of 5,000 to 5,500 m/g and a breaking length of 21 to 23 km should be evaluated as a high-quality variety.
3. Cotton having a fiber staple length of 23 to 25 mm, strength of 3.4 to 3.7 g, fineness of 4,600 to 5,00 m/g and a breaking length of 19 to 21 km should be evaluated as a medium-grade variety.
4. Cotton that does not meet medium-grade standards should be evaluated as a poor-quality variety.

All varieties differ by one price grade and within each variety there is a further division into five fixed price grades. Based on these grades and fixed price standards we have made four trial accounting calculations.

#### Account No 1: Continued Cultivation of Shandong Cotton No 1

Based on internal qualities, Shandong Cotton No 1 meets only the grading standards for medium-grade varieties. This being the case, its original price for grade-1 ginned cotton should be revised to the grade-3 price. Calculated in this fashion, due to the general drop by two grades for the variety, cotton farmers' incomes would drop by approximately 18 yuan per dan sold to the state. Income would be reduced by 32 yuan per mu and raw material costs to the industrial sector would correspondingly drop by 32 yuan per dan of cotton. In this way, the market for Shandong Cotton No 1 would be opened up.

#### Account No 2: Switch to Cultivation of Shandong Cotton No 6

Based on internal qualities, Shandong Cotton No 6 basically conforms to the grading standards for high-quality varieties. This being the case, its original price for grade-1 ginned cotton would be revised to the grade-2 price. Cotton farmers' incomes would drop by approximately 9 yuan per dan sold to the state, and by 18 yuan per mu. However, according to the results of regional trials, cultivation of Shandong Cotton No 6 produces an average of 27 jin per mu more than does Shandong Cotton No 1, so cotton farmers could increase their incomes by 54 yuan due to the higher yield. The increase and the decrease offset each other and farmers could still raise net incomes by around 36 yuan. Moreover, as far as the industrial sector is concerned, the use of Shandong Cotton No 6 can not only raise the quality of yarn but can also save about 9 yuan per dan in raw material expenses.

#### Account No 3: Switch to Cultivation of "2352"

Based on internal qualities, "2352" cotton basically conforms to the standards for superior varieties. This being the case, its original price for grade-1 cotton can be maintained. Under the circumstances, because there would be no increase in raw material costs, weaving units could weave high-quality yarn at higher than 42-count. However, according to regional test results, "2352" produces an average of 31 jin per mu less than does Shandong Cotton No 1, so farmers' incomes would drop by 62 yuan due to the lower yield.

#### Account No 4: The Economic Benefits of Disposing of Stored Cotton

Based on the above variety and price-setting standards, to dispose of the current stockpile of 13.6 million dan of ginned cotton, if the entire lot is Shandong Cotton No 1 the price will generally drop by two grades and the commercial sector will lose 244.8 million yuan. However, after it is sold at the lower price, in a year they could save 216.5 million yuan on the payment of interest and insurance charges and 61.2 million yuan on cotton losses incurred due to the natural deterioration of quality while in storage. These two factors together would save 277.7 million yuan. Because the savings and the losses brought about by marketing at a lower grade offset each other, overall losses could be reduced by 32.9 million yuan. In addition, it would reduce the capital claimed by cotton stockpiles and it would also accelerate turnover, expand foreign exchange earnings from exports, and stimulate the development of textile goods production. These economic benefits have not yet been calculated in. Consequently, adoption of the above cotton grading and price-setting standards would be enormously advantageous for the growth of industry and agriculture, both in terms of macroeconomic benefits and in terms of microeconomic benefits.

### III. Conclusions and Suggestions

Based on the above analysis and trial calculations, it is apparent that the basic reason for unmarketability and overstocks of Shandong cotton is the poor quality and high price brought about by inequitable grading standards. Furthermore, we should consider revision of cotton grading standards as the optimum plan for creating an outlet to dispose of cotton. If we adopt this plan, we can satisfactorily regulate the relationship between supply and demand, open up markets, and rapidly bring unmarketable and overstocked cotton under control. We can use a portion of the increased economic benefits brought about as weaving units reduce raw material costs to lower the price of textile goods and so stimulate an increase in consumption. We can resolve the problem of poor quality and high price that afflicts Shandong cotton, and thus increase its competitive ability in foreign and domestic markets. On this basis, we recommend the following:

1. The departments concerned should cooperate to study and revise cotton grading standards.
2. We must strive to popularize the improved variety Shandong Cotton No 6 to replace Shandong Cotton No 1. Enable farmers to make up through expanded production the lost profits brought about by readjustment of cotton grading standards.

3. In order to stimulate consumption, the price of cotton textiles must be suitably lowered. Moreover, we must readjust the state textiles plan and expand the aggregate domestic sales of raw cotton.

4. We must establish the county as the cotton production unit and concentrate varieties regionally for cultivation. This will be helpful in internal quality grading inspections.

5. Agricultural science and technology units, extension units and production units must cooperate to tackle key problems. We must improve the internal quality of cotton, breed varieties suitable for market as quickly as possible and achieve a superior cotton variety that can compete on domestic and foreign markets.

12510

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SHANGHAI

AGRICULTURAL DEVELOPMENT, ECONOMIC RESULTS IN DEVELOPED REGIONS

Beijing NONGYE JINGJI WENTI [PROBLEMS OF AGRICULTURAL ECONOMICS] in Chinese  
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[Article by Lu Liangshu [4151 5328 1859], Huang Peimin [7806 0160 3046] and  
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[Text]

I

Readjustments in the industrial structure of rural areas in the original Shanghai Economic Zone over the past few years have led to large-scale development of the commodity economy and profound changes in the entire rural economy. Moreover, rich new experience has been created in practice. Studying and exploring the process and experiences in agricultural development in these areas is extremely important not only for the original Shanghai Economic Zone itself but also to enlighten and serve as a reference for all of China.

In an overall sense, the original Shanghai Economic Zone has coordinated a balance between the relations of production and the forces of production over a period of years. It has begun to use economic results as a yardstick, to operate in observance of economic laws and to evaluate the results of economic construction in terms of increased economic value. It has promoted all-round development of agriculture, forestry, animal husbandry, sideline production, fisheries and rural and small town industry. It has strengthened the development of tertiary industries and brought about great changes in the rural society and economy and in production and life. Industry occupies the primary position in the structure of the rural economy. A great deal of rural labor has left the soil without leaving the village. New industrial departments are being opened continually and they are striving to develop commodity production. The appearance of an industrial structure that integrates the administration of agriculture, sideline production, industry and commerce has increased their technical and economic competitive abilities and increased the accumulation of capital for expanded reproduction in agriculture. An economic network that integrates industry and agriculture and merges town and countryside into an organic whole has been developed. This indicates that agricultural development in the original Shanghai Economic Zone already has entered a new historical stage.

How can developed regions further accelerate agricultural development?  
We feel from our investigation that the answer can be given in five parts:

1. Agriculture cannot be limited to "grain, cotton, oils and pigs" but must be concerned with the entire rural economy.

Being restricted to the "small peasant economy" in the past has meant that "agriculture" traditionally has been considered to be only cropping or "grain, cotton, oils and pigs." It now seems that it will be impossible to achieve further developments in agriculture without breaking out of the limits of the "small peasant economy." We must have a three-level understanding of agriculture. The first level is cropping, which includes grain, cotton, oils, sugar, hemp, tobacco, vegetables, silkworms, tea, fruits, medicines and other miscellaneous crops. The second level includes the five lines of agriculture, forestry, animal husbandry, sideline production and fisheries. The third level includes rural processing industries, mining and extraction industries, commerce, services, transportation, the construction industry, the small-scale energy resource industry and so on. One important experience in agricultural development in these regions is readjustment of industrial structures. In Suzhou, Wuxi, Changzhou and Nantong Cities in Jiangsu Province, the proportion of the total value of rural agricultural, sideline and industrial output accounted for by agriculture has dropped from 49.5 percent in 1978 to 27.2 percent in 1983, while the proportion created in rural and small town industries increased from 37.8 percent to 61.7 percent over the same period. The proportion of the value of agricultural output accounted for by cropping dropped from 80 percent to 72 percent, while the proportion coming from forestry, animal husbandry, sideline production and fisheries (not including village-operated [former production team] industry) increased from 20 to 28 percent. At the same time, the proportion of the labor force that is employed in agriculture dropped from 80 percent in 1978 to 61 percent in 1983.

2. The goal of agricultural production should be changed from a pursuit of output and getting enough food and clothing to one of a flourishing economy and getting wealthy faster.

Agricultural production in the past simply pursued output to meet the need for food and clothing at all costs. This region in recent years has concentrated on comprehensive development and utilization of natural and social resources, has adopted a series of measures like linking remuneration to output, management by quota and so on. It has eliminated egalitarianism in distribution and greatly improved labor productivity. The region has brought in talented people, technology and capital to develop and reproduce industries. This not only requires high output but also demands good quality, high value of output, good ecological results and continual improvement of land productivity and the percentage of marketed products. Only then will sustained and stable development of agricultural production be possible.

3. Combining and coordinating development of agriculture, industry and sideline production is the route to faster wealth for the peasants.

Agricultural production in the region as a whole can be divided into three categories as a result of different natural and social conditions. The first category is regions with relatively more land, broad expanses of water and fairly large surrounding area. The value of output from agriculture accounts for a substantial proportion of the value of output from the three lines of agriculture, sideline production and industry, and cropping still accounts for a fairly large proportion of the total value of agricultural output. The percentage of marketed products for grain remains fairly high. Agriculture, animal husbandry, fisheries, silkworm raising, vegetables and many other items are organically integrated and mutually sustaining, and have fairly good results overall. The second category is regions with a larger population and less land. They have concentrated towns and cities, high land productivity and broad avenues for employment. They have a fairly strong economic base of rural and small town industries and maintain an agricultural structure with a fairly high proportion of cropping along with selected development of economic diversification. The third category is regions where industrial crops occupy the primary position. Cropping still is the primary activity, the proportion from forestry, animal husbandry, sideline production and fisheries is fairly low, and the processing and utilization of agricultural and sideline products is poor. They have a weak capacity for reproduction and most involve the shipping of raw materials or elementary products. There is a great potential for development of intensive processing and comprehensive utilization.

Looking at the overall direction of development, the general trend in the rural economy in developed regions is close integration of town and countryside, a higher degree of comprehensive management and development of the commodity on a larger scale, and a gradual transition from agriculture combined with other activities to specialized, commercialized, socialized and modernized agriculture. Actual developments can assume four basic patterns:

(1) "Suburban type" agriculture: Agricultural production primarily serves the multifaceted demand of the enormous markets in central cities. Agricultural production primarily involves fresh and live products (like vegetables, fish, meat, milk, eggs, fruits, flowers, etc.).

(2) "Rural and small town type" agriculture: Agricultural production serves as a component of agricultural, industrial and sideline production. With a goal of guaranteeing development of rural and small town industry and sideline production, agriculture and industry are an organic whole that mutually promote and depend on agriculture.

(3) "Rural type" agriculture: This refers to areas that are fairly distant from cities and where industry and sideline production have developed slowly. They depend primarily on exploiting their intensive agriculture potential and continual expansion of the extensive potential of agriculture to improve social and economic results and ecological results in agriculture.

(4) "Foreign trade type" agriculture: Some regions along rivers and the coast have excellent port conditions for developing foreign trade. As the policy of opening up to the outside develops, they gradually will form an agricultural production pattern with a primary goal of "foreign trade."

4. A change in working styles and the appearance of large numbers of talented people, new types of entrepreneurs and administration and management experts.

The focus of rural economic work at the present time should be the overall economic situation. This means a focus on production as well as information, processing, circulation, markets, credit, transportation and other links. All leadership work should make the transition from "administrative type" to "management type." All rural areas and villages should pay attention to market trends, practice economic accounting, and be concerned with quality, lowering costs and improving results, whether in agriculture, industry, sideline production, or even contractual responsibility for specialized groups or specialized households. Moreover, a group of talented people who understand and use science, who know how to manage and who grasp information should be brought to the fore. Large numbers of specialized households have become entrepreneurs and skilled managers. Leading cadres in many cities, counties and rural areas have become new management and administration experts and have greatly improved the level of management and administration.

5. Increase investments in intellectual resources, strive to train capable people and prepare the conditions for future development at an even larger scale and on even higher levels.

As the commodity economy develops, the competitive ability of a product becomes increasingly important. Competition between products at the present time is actually competition between knowledge and talent. For this reason, the economically-developed cities, counties and rural areas have paid close attention to investment in intellectual resources. Education and training of talented people has become an important agenda and is being focused on as a strategic measure. "Cities and counties running professional training schools, rural areas and small towns running technical schools, and villages and teams providing schooling at no costs" provides dependable conditions for development on an even larger scale and at an even higher level in the future.

## II

The development of commodity production in rural areas and especially the growth of rural and small town industries has led to many peasant households becoming dual activity households who are engaged primarily in industry while also handling agriculture. Although certain areas with fairly good economic strengths have begun to make the transition from dual-activity households to specialized peasant households, there are not very many of them. The following patterns now can be found in the original Shanghai Economic Zone: One is large farming households (generally with



10 to 30 mu of land). They have the characteristics of little land and fairly low conditions of industry and sideline production and agricultural mechanization. The second is family farms. Each household in areas with a certain amount of agricultural mechanization and socialized service conditions can assume contractual responsibility for 40 to 100 mu. The third is integration of agriculture and industry into an organic whole. Agriculture, industry, sidelines and other types of production at the village level have become fused into an organic whole with specialized teams for farming. Moreover, industry supplements agriculture and sideline production, each having a division of labor and being mutually linked. The fourth pattern is the distribution of "three fields" to households (grain ration fields are distributed to people, fodder fields are distributed to pigs and responsibility fields are distributed to laborers). The administration of industry, sideline production and other activities is fairly developed, with every family involved in industry, sideline production and agriculture, and with early, middle and late cropping. The fifth is specialized groups or collective contractual responsibility. This primarily involves vegetable-growing peasant teams near cities that still are subject to directive planning arrangements and that are unwilling to contract responsibility for land to households.

Development of the rural economy in recent years has brought about several new contradictions in agriculture. This is especially true of the further readjustment and perfection of reforms in rural economic systems and the failure to deal with the problem of prices that do not conform to value. The masses now commonly express the opinion that "a small investment in managing commerce provides enormous profits, a small investment in industry provides considerable profits, a small investment in grain provides profits equal to the investment, and pig raising requires subsidies and provides no profits." According to a survey of models in Jiangsu Province, the average value of a labor day in agriculture in 1983 was only 2.61 yuan, while the figure was 3.57 yuan for sideline production and 17.09 yuan for industry. Most prominent is the grain problem. The net income from grain generally is only 70 to 90 yuan per mu. A second problem is related to pigs, which also is a national problem. Moreover, there also are problems with the low benefits provided by processing agricultural and sideline products, the structure and sales outlets of rural and small town enterprises, development and construction of towns, and other questions that require careful research and solutions. If these problems are resolved well, agriculture in the original Shanghai Economic Zone will develop even faster and it will become a vanguard region for agricultural modernization for all of China. For this reason, we should concentrate on the following links:

(1) Fully foster the advantages of the original Shanghai Economic Zone. Along with reforms in urban economic systems, reforms also should be promoted in rural economic systems to further readjust the industrial structure and achieve technical transformation in agriculture, to accelerate the formation of an economic network that integrates industry and agriculture and forms an organic whole of town and countryside, and to establish new relations for coordination of agriculture and industry and for mutual support of urban and rural areas. The concrete method is to first of all

make appropriate downward transfers of authority. The scale of administration, rural and village construction plans, directive production plans, some fiscal authority and other authority can be transferred directly to the counties or townships and small towns. The second is that agricultural and sideline product prices can be opened up for readjustment according to local market demand and to promote rapid progress in circulation and weak activities. The third is to strive to make good readjustments in township, small town and enterprise management systems as quickly as possible, to motivate township, small town and village cadres at all levels and to increase the vitality of rural and small town enterprises.

(2) Set up socialized service systems, promote specialization in agricultural production, and improve returns to scale. We should entice the peasants to gradually expand the scale of management, to establish a socialized service system, to give full play to the functions and roles of technical extension stations, credit cooperatives, grain management offices and supply and marketing cooperatives, and to strengthen leadership and services and increase the vitality of technology, machinery, plant protection, livestock and poultry varieties, credit, information and other services.

(3) We should coordinate the development of agriculture, sideline production and industry and promote the regionalization and systemization of industrial structures. We should pay attention to advantages in four areas: The first is to foster the geographical, natural resource and commodity advantages of a locality. The second is to foster personnel, technological and project advantages. The third is to foster market, information, foreign trade and communications advantages. The fourth is to develop advantages of a network of relationships and mutual permeation. In terms of the original Shanghai Economic Zone, there may be similar natural conditions and socio-economic conditions, but "the wind is different ten li down the road." Jiangsu Province maintains a relative advantage in grain. Although the southern part of Jiangsu has expanded the area in industrial crops and reduced the area that is being triple cropped, the emergence of new commodity grain base areas in Xuzhou and Huaiyin Prefectures has increased the area of grain surplus in Jiangsu. The pressure from grain is slightly greater in Shanghai and in Zhejiang Province. For this reason, a macro-economic perspective indicates that we should promote weak links and achieve local micro-level regulation. For a single city, county or township, we should formulate good long-term development plans and strengthen information and planning guidance. Wujiang County in Jiangsu Province has given full play to its advantages and established five fully integrated systematized production systems: integration of silkworm raising and silk making, integration of vegetable planting, purchasing, processing and sales, integration of chicken raising and egg products, integration of aquatic breeding and sales, and integration of rabbit raising and rabbit pelt processing. Systemization of production has increased economic results many times over. In silkworm production, for example, the income from raising mulberries for silkworms is only 200-plus yuan per mu, but the value can be increased to about 600 yuan if the silk is woven and to more than 800 yuan if it is processed into clothing.

In summary, we should base ourselves on a flourishing rural economy to examine the questions of agriculture in developed regions. We still must stress that agriculture is the foundation and that grain production cannot be neglected. Agriculture must move gradually toward specialization in production, socialization of services, mechanization of cultivation, making farming techniques technical and scientific and commercialization of products. There should be comprehensive administration and all-round development of agriculture, industry, sideline production and commerce. We should adopt a developmental path based on multiple forms, structures and patterns according to the actual conditions of each location.

12539

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SHANXI

## REFORM OF RURAL COMMODITY CIRCULATION SYSTEM

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[Article by He Gaoji [0149 7559 6060] and Wang Jiongming [3769 3518 2494] of the Shanxi Province Xinzhou Prefecture CPC Committee Political Research Office: "New Routes for Reform of Circulation Systems in Rural Areas"]

[Text]

I

Although there have been some preliminary reforms in commodity circulation systems in rural areas at the present time and some results have been achieved, there still has been no qualitative turnaround, especially in the supply and marketing cooperatives that are the primary channels for commodity circulation in rural areas. The pace of reform has been slow and there still exists the contradiction of a lack of correspondence between exchange links and production links. This contradiction will become increasingly prominent as the rural areas of China make the transition from a self-sufficient and semi-self-sufficient natural economy to a commodity economy and it will seriously affect the normal development of the commodity economy in rural areas. Carrying out fundamental reforms of rural circulation systems now has become an urgent demand of the masses and is an objectively inevitable trend in economic development.

Practice during the reforms in recent years has shown that it is not possible to rely merely on reforms in supply and marketing cooperatives and other professional departments within the sphere of circulation. How should reforms be made? We feel that the method of "collectives building the stage, peasants singing the opera" used in Yuanping County in Shanxi Province's Xinzhou Prefecture is worth emulating. This method now has been extended throughout Xinzhou Prefecture. "Collectives building the stage, peasants singing the opera" refers to breaking down the separation of town and countryside and administrative boundaries to have collective economic organizations, state-run industrial and commercial enterprises and all departments in party and government organs actively assist and join with the peasants in making great efforts to develop all types of service systems and set up different forms of economic entities. The state, collectives, individuals, peasants, employees and cadres should move forward in unison to achieve excellent mutual integration and form a new open system that has more components and channels and fewer links.

This method was devised to meet the needs of the peasants in developing commodity production, and is especially adapted to the needs of commodity circulation in rural areas. One aspect is that continual perfection and development of production responsibility systems has greatly raised labor productivity in agriculture. Most communes and brigades have a labor surplus of about one-third. There also are some capable people who know how to do business and are good at commerce, and their strengths in this area still have not been fully exploited. New routes must be sought for dealing with the surplus labor power, idle capital and latent technologies that have appeared directly in the production process.

The second aspect is that shortages of capital, personnel and facilities in the area of rural circulation are far from meeting the needs of developing commodity production. "Collectives building the stage, peasants singing the opera" can closely integrate both aspects and bring the surplus capital, labor power and technology that have appeared in the production process into the circulation process in a guided and organized manner. Each will be able to successfully solve their contradictions and present a new and enormous dynamic force to the sphere of circulation. As an example, Xinzhou City collected more than 620,000 yuan in idle capital during the first quarter of this year and organized more than 9,800 surplus laborers to move out of the sphere of agricultural production into the sphere of circulation. The scattered capital, surplus labor power and idle equipment that were dispersed across many battlefronts were fully utilized to form a new social force that serves commodity circulation. According to preliminary statistics, the prefecture accumulated nearly 100 million yuan in the past half year and took more than 300,000 laborers out of the production process. About 43 percent of the capital and more than 30 percent of the labor power went into the realm of circulation. They equal or surpass the supply and marketing cooperative system in the strength of the capital and the number of personnel, and they have greatly enlivened commodity circulation in rural areas.

## II

By using "collectives building the stage, peasants singing the opera" as a breakthrough point, Xinzhou Prefecture has made great efforts to reform commodity circulation systems in rural areas. The primary methods they used were:

1. Comprehensive and thorough system reforms in supply and marketing cooperatives and opening up primary channels. First, they integrated with the special characteristics of each department and actively developed "building the stage, singing the opera." Integrated administration of purchasing and sales, production and sales, transport and sales, extension and sales, cropping, processing and others was established with collective units, specialized households and key households in rural areas. The actual method involves the provision of information, technology, capital, responsibility for extension and sales, materials supplies and other comprehensive pre-production and post-production services. The peasants produce and sell their products and are distributed rational profits according to contracts. In Pianguan County, for example, the supply and marketing cooperative built a total of 117 such

"stages" for joint administration of planting 3,120 mu of land in 10 products like sunflowers, hemp seeds, red beans and medicines. More than 3,800 pigs and cattle are being raised under joint administration. Some 24 vermicelli plants, brick plants and processing stations (and grounds) for soy sauce and vinegar, dried foods, bean curd, weaving and other things have been set up. It is predicted that total annual sales will reach 1.5 million yuan.

The second method is joint investment and administration and share dividends between supply and marketing cooperatives and peasants. An example is the supply and marketing cooperative in the county seat of Dingxiang County, which has organized "capable people" in rural areas to build a "stage" for a "supply and marketing joint trade company." They have adopted the administrative and distribution methods of capital collection through shares, joint administration, independent accounting, responsibility for profits and losses, fixed dividends and distribution of profit shares. They handle sales of local farm, sideline and special products, industrial and agricultural means of production and household goods for the masses. They collect commercial information, provide market information and technical guidance for commodity production, and they have developed businesses as buying and selling agents and renting out means of production. Second, the word "contract" is prominent, with comprehensive implementation of the management methods of "contractual bidding, cabinet administration, qualitative checks and floating wages." They have implemented democratic elections for hiring cadres and using experts and capable people. Fixed labor, contract labor and employees who jointly handle agriculture and commerce can assume leadership positions at all levels if they meet the conditions. During the period of their appointment, they receive political and economic treatment and professional compensation identical to state cadres at the same level. This treatment ends for those who are not elected. Compensation is eliminated and they return to their original posts. In the area of employee recruitment, they have adopted the method of unified testing for rural commune members to select the best candidates who will work both in agriculture and commerce. Finally, on the basis of model systems, they have broken down administrative restrictions and established central purchasing and sales stations according to economic spheres and circulation customs. Unified contracts are signed for regional purchases and sales of commodities, with unified activities by purchasing and sales personnel and unified readjustment of surpluses and shortages. The basic level cooperatives within a region are organically united to form regional integrated economic development associations.

2. They have striven to set up "economic merger" bodies. These economic bodies are a merged structure of all social forces and economic components of the state, collectives and individuals. With a prerequisite of voluntarism and guaranteed economic benefits, the labor, capital, equipment, technology, land, information and other free elements of social production are freely and broadly organized within the mergers. Two or more economic components may exist within a single economic body, as well as different qualities of administrators and laborers. They are merged into a single comprehensive body with common economic goals and interests. An example is the "water conservancy and conservation materials supply station" set up in Yuanping County. The capital was collected from individual investments, bank loans



and investments from the Water Conservancy and Conservation Bureau. The personnel structure is made up of peasants, retired cadres and state employees. The Water Conservancy and Conservation Bureau provides the buildings and related equipment. After repayment of loans and interest on dividends, the profits are rationally distributed between the state and individuals.

3. They established various types of specialized service companies. Based on the needs of specialization and commercialization, they coordinated forces in all areas and employed a large number of "qualified people" to set up shipping, purchasing and sales and other specialized service companies. In Yuanping County, for example, based on the actual shortages of raw coal, difficulties in transferring agricultural and sideline products to the outside and rail transport shortages, as well as the needs of specialized shipping households, the county communications bureau lead the way in setting up the "Yuanping County Joint Truck Transport Corporation" with 26 subsidiary companies under it. Some 455 rural specialized shipping households with 374 trucks are participating in a joint effort that employs 1,100 persons. After the company was founded, they actively dealt with problems faced by specialized shipping households and greatly improved highway transport capabilities in the county. They effectively solved the problem of transport bottlenecks that had gone unsolved for a long period and greatly alleviated the obstructions to coal circulation in communes and brigades. Another example is Xinzhou City, which recruited "capable people" in many areas during the first part of May to establish the "Xinzhou City Purchasing and Sales Corporation." There are 26 subsidiary companies set up according to economic regions to coordinate shared purchases and integrated sales work for agricultural and sideline products outside unified purchase tasks and integrated purchases and shared sales work for industrial products. They eliminated restrictive rules and regulations, reduced links and broke down regional and departmental barriers. Within 2 months of its establishment, the company had sold more than 500,000 jin of overstocked hot peppers, potatoes, sunflowers and soybeans from the previous year with a total value of more than 129,000 yuan. They purchased flour, wheat and a large number of industrial products in short supply with a value of more than 227,000 yuan.

4. They have broken down administrative boundaries to set up trade warehouses or integrated management of sales. Xinzhou City signed a formal contract with the Wuhan City Vegetable Company in the early part of May for joint administration of sales of sorghum, potatoes, vermicelli, hot peppers, sunflowers, beans and other agriculture, sideline and special products with Wuhan City. According to a survey, Wuhan City has a great demand for these products, so this pattern has become a primary route for integrated transport of agricultural, sideline and special products from Xinzhou City. Some counties also have sent out large numbers of negotiators to set up relations or joint administration with Guangzhou, Shanghai, Chengdu, Beijing, Tianjin and other central cities and with Nei Mongol.

5. They have established small towns to serve as points for commodity collection and dispersion in rural areas. Shahe Township in Fanshi County historically has been a commodity trade center for a large area. A few years ago, commercial activities in the township were absent and the town itself



was declining. After rapid development of commodity production, there was an urgent need for construction in Shahe Township. There was no effective solution for capital, personnel and other questions, however. Like an enormous heat wave, "collectives building the stages, peasants singing the opera" has encouraged hundreds and thousands of "capable people" who wish to leave farming and enter towns to handle commerce and business. Moreover, persons in all areas who wish to take up circulation work are being brought into township construction. In just 3 months' time, 154 households applied to Shahe Township for permission to engage in commerce. A labor force of more than 850 persons has left farming, equal to more than half the township's total labor force. They have collected more than 3.35 million yuan in construction capital, including 2.01 million yuan in individual investments. Peasants and cadres alike are among the ranks of those investing. Cadre investments make up 14 percent of individual investments. This has greatly accelerated the pace of small construction.

6. They have developed individual commercial households and shipping households in rural areas. Xinzhou City, for example, decided at the beginning of this year to encourage the related departments to go into rural areas and assist the peasants in setting up individual commercial households and shipping households. Moreover, they allocated 437,000 yuan in interest-free loans to provide them with capital assistance. In addition, they also decided that, besides enjoying wholesale prices, they also receive preference in deductions for wholesale price differentials. Allocation authority has been transferred downward to make it easier for the individual households. The 28 basic level cooperatives and the 8 agriculture, industry and commerce companies in the town also can engage in wholesaling to solve local problems in bringing in goods. Individual commercial households and shipping households have developed rapidly in Xinzhou City over the past half year, with 1,969 newly-added households and a workforce of 3,980 persons. They have become a dynamic force in the realm of commodity circulation in rural areas.

### III

Although Xinzhou Prefecture has spent only a short time in making great efforts to reform rural commodity circulation systems, they have played an obvious role:

1. They have thrown off the ideology of "neglecting commerce" and eliminated customary viewpoints. As a result of profound historical origins and social factors, the ideology of neglecting commerce remains extremely severe among a substantial number of people, especially in the vast rural areas. They have voluntarily scorned "doing business" and often equate "commerce" with "evil," sometimes to the point of feeling that "without commerce, there is no evil." "Collectives building the stage, peasants singing the opera" has motivated all the battlefronts, components and members of society to thrust themselves into the sphere of circulation. Like an enormous wave, they are violently shaking the old consciousness that neglects commerce in many ways. Before this wave arrived, traditional superficial concepts were discarded. In less than half a year, more than 300,000 peasants in Xinzhou Prefecture left farming to engage in industry and commerce, which effectively illustrates this point. This is an important condition for further enlivening the economy and prompting the development of commodity production.

2. A preliminary commodity circulation system that is open and multichannelled and has fewer links has been formed. This is indicated by: 1) Coexistence of many different economic components. "Collectives building the stage, peasants singing the opera" has led to competitive development of all economic components in rural markets. Various specialized purchasing and sales and transport companies and different types of joint agricultural and commercial organizations with the qualities of a cooperative economy have sprouted up like shoots after a rain. Cooperative commerce under systems of collective ownership has grown and been strengthened rapidly. Specialized purchasing and sales households and shipping households are found everywhere, and there has been substantial growth in those involved in individual commerce who have overcome local difficulties and set up stations. Especially important is the appearance of a large amount of joint investments by the state, collectives, individuals, peasants, employees and cadres for joint management of "economic merger" bodies. They mutually complement and promote state-run commerce, and also exist within a sphere of unified socialist commodity circulation in rural areas, forming a diversified circulation structure that provides a prerequisite for the establishment of a multi-channel circulation system.

2) Multiple channels of circulation are operating together. "Collectives building the stage, peasants singing the opera" is based on economic entities that are jointly run or that have responsibility for their own profits or losses. This motivates all forces in society to develop service systems. The peasants, collectives and all departments and units of the state work together, forming a situation of multiple coexistent channels of circulation based on state-run commerce, supply and marketing cooperative commerce, "economic merger" commerce, collective commerce, commune and brigade commerce, specialized company commerce, joint agro-commercial commerce, small town commodity exchange centers, rural trade fairs, individual businessmen and so on. Together, they form a network of socialist commodity circulation channels in rural areas.

3) Circulation links have been reduced. Any of the various forms of commercial organizations formed by "collectives building the stage, peasants singing the opera" that are capable of direct contact with production and sales strive to have direct contact with production and sales. Any direct links between production units and commercial retail units that can be established directly do not pass through an intermediate link. Any circulation channel suited to economic currents is opened to the greatest extent possible, without any administrative or regional boundaries.

3. They have promoted reforms in the supply and marketing cooperative system. Some achievements have been obtained after 2 years of reforms in supply and marketing cooperatives, but there are many real problems that still have not been dealt with, and some areas still depend on old ideas and working styles, with few changes. "Collectives building the stage, peasants singing the opera" has led to flourishing development of all economic components in the sphere of circulation and all circulation channels. In comparison, supply and marketing cooperatives still obviously remain in unfavorable circumstances. The situation in some areas will be quite difficult to maintain. Faced with these pressures, they have creatively extended and applied the method of "collectives building the stage, peasants singing the opera" to open up many

forms on a broad basis and multilayer joint administration of agriculture and commerce, and they have restored and developed economic relationships with the peasants. They are encouraging, assisting and guiding the peasants to participate in management of supply and marketing cooperatives, to jointly develop commodity production, and to jointly reap managerial benefits. Various types of economic entities for sales, processing, storage, technology, information have been set up. At the same time, they also have opened the road for "contractual responsibility," thoroughly intensified system reforms, and enabled rapid restoration and development of the "three qualities" of supply and marketing cooperatives, forming a preliminary comprehensive service center for the rural economy.

4. They have promoted reforms in financial systems. The single administrative financial system now operating in China is very ill-adapted to major development of commodity production today. This is especially true in the neglect of those commercial organizations that are not state-run, restriction of commodity circulation channels and other obsolete rules and regulations that have severely restricted reforms in rural commodity circulation systems and affected the enlivenment of the rural economy. Thorough development of "collectives building the stage, peasants singing the opera" has made the contradictions of ill-adapted financial systems even more acute. In mid-May, Pianguan County broke through obstacles to set up a "joint investment share company" for widespread absorption of surplus capital from state-run enterprises, collectives and urban and rural residents. The capital collected by the company is not included in state credit planning and capital utilization is not restricted by credit departments. If a project provides benefits for society and can repay the principal and interest, then any unit or individual can borrow from the company. The company now has accumulated more than 400,000 yuan in capital. Fanshi County worked with patriotic overseas Chinese to establish an "Overseas Chinese Limited Share Company" and set up an office in Hong Kong. It now has collected more than 100,000 yuan in capital within China and also collected quite a bit of capital in Hong Kong. Although other counties have not yet set up such companies, they all are using this method to collect capital. In reality, this is a model form of popular credit. Banks are beginning to develop into a diversified system with many channels and forms. There is no doubt that this is a new breakthrough in financial systems and that it will have a very major effect on development of the entire national economy.

5. They have opened up circulation channels and basically achieved unimpeded circulation of goods. The establishment and preliminary formation of a multi-component, multichannel circulation system with fewer links quickly transformed the past situation of too few channels and too many links, impediments for large numbers of commodities and overstocks. Large amounts of formerly overstocked goods have been sold. An example is hot peppers in Dai County. They still had 8 million jin in March of this year. Various new commercial organizations sprang up during April and May and basically found sales outlets for these stocks. The difficulty of buying and selling in Xinzhou County now has been fundamentally overcome and goods basically are able to circulate freely and easily according to the principles of economy and rationality.

SICHUAN

# LIVE-HOG PRODUCTION SETS RECORD

Chengdu SICHUAN RIBAO in Chinese 12 Dec 84 p 1

[Article: "This Year's Live-hog Production Sets Highest Record in Sichuan's History; Life for the People Has Improved and Major Cities in the Nation Have Benefitted"]

[Text] Sichuan's sustained increase in live-hog production has improved life for the people in the province, has helped the major cities in the nation and is making appropriate contributions to the four constructions. Since our party's 3d Plenum of the 11th Party Central Committee up to the end of last year, the number of live hogs in pens increased at an average rate of 7 percent a year, the quantity of manure increased by 10.8 percent purchases by 4.1 percent and sales by 2.7 percent.

By the end of September of this year, the number of live hogs in pens in the whole province was close to 60 million, an increase of more than 5.4 million compared to the beginning of the year and an increase of 6.8 percent from the same period last year, thus setting the highest record in our province's history. Up to November of this year, the purchases of big porkers from major state-run commercial channels alone reached 16.9 million, an increase of 6.5 percent from the same period last year. Due to the vigorous impetus of live-hog production, up to the end of November, frozen meat was transferred to more than 10 cities outside the province, rising almost 3 times from the same period last year, and sales of meat outside the country have jumped from occupying no position to that of fourth place.

Why has Sichuan's live-hog production been able to experience sustained increases? According to the initial analysis of the comrade in charge at the provincial food bureau, the following reasons are: first, although our provincial rural commodity economy is still not very developed at the present time and earnings from hog raising are not high, cash in the countryside is one of the main resources. Second, our province's grain achieved bumper harvests for 7 years running, thus supplying favorable conditions for the development of live-hog production. Third, the party's rich democratic policy spurs and invigorates the rural economy day by day with more channels engaged in big porkers, which moves the development of live-hog production a step forward. Fourth, following the implementation of

the rural economic policies, hog-raising specialized households have greatly expanded, and by the end of June, the specialized households in the province had already grown to nearly 700,000.

In order to adapt to the needs of the domestic and foreign market, at the beginning of the year, the provincial food bureau will request every level of the food bureau to carry out vigorously the reforms regarding the centralized procurement of food and change step by step unrefined processing into refined processing, unpackaged goods into packaged goods, large packages into small packages, raw food into cooked food and single products into many products. By undergoing a year of hard work, food-refining processing has risen from around 3 percent last year to approximately 6 percent this year.

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CSO: 4007/181

SICHUAN

## REGULATIONS ON CROP SEED MANAGEMENT PROMULGATED

### Seed Management Regulations Issued

Chengdu SICHUAN RIBAO in Chinese 12 Sep 84 p 2

[Article: "Sichuan Province Crop Seed Management Regulations (Adopted by the 8th Session of the Standing Committee of the 6th Sichuan Provincial People's Congress, 2 September 1984): Announcement by the Standing Committee of the Sichuan Provincial People's Congress--'Sichuan Province Crop Seed Management Regulations' Adopted by 8th Session of the Standing Committee of the 6th Sichuan Provincial People's Congress; Hereby Promulgated and Put Into Force, 12 September 1984"]

#### [Text] Section I: General Provisions

Article 1: These regulations have been drawn up based on relevant state seed work laws, regulations and policies to strengthen crop seed management, to facilitate improved variety selection, propagation and popularization, and to promote agricultural production.

Article 2: Attention must be given to applying the most recent achievements of modern science and technology in the breeding and popularization of improved varieties of farm crops.

The system of contracting must be implemented for seed research, production and management.

Agricultural departments must organize seed renewal in a planned manner. Units and individuals engaged in crop production should opt for improved varieties.

Article 3: Regionalized variety distribution, specialized production, mechanized processing and quality standardization in seed work must gradually be realized, and the supplying of improved varieties must be organized in a planned manner.

Guidance provided the peasants in selecting and retaining seed for private use must be enhanced.

Article 4: The seed administration offices of the agricultural departments at the provincial, municipal, autonomous prefecture, prefectural and county levels must implement relevant state crop seed laws, regulations and policies, formulate, implement and supervise programs for crop variety distribution and improved variety breeding and popularization, develop information services and coordinate seed research, production, management and popularization work. The provincial seed administration offices must organize crop variety experimentation, demonstration, examination and approval, and draw up technical standards for farm crop stock (and improved) variety production and seed testing, processing and storage.

The seed companies of the agricultural departments at all levels are to be responsible for crop and seed production, procurement, processing, sales and popularization work.

Article 5: The farm crop seeds to which these regulations refer are the seeds of cereal grain, oil-crop, cotton, sugar, fiber, tobacco, vegetable and green manure crops.

## Section II: Variety Resource Management and Variety Selection

Article 6: The provincial Academy of Agricultural Sciences is to be responsible for collecting, sorting out, preserving, appraising, researching and utilizing crop variety resources throughout the province.

Article 7: All crop variety resources imported from abroad must undergo quarantine and isolated experimental planting as prescribed; after affirming the absence of the quarantine targets, the resource can be used in the locality. The importing unit must hand over to the provincial Academy of Agricultural Sciences the name list, directions and a suitable amount of the imported seeds.

Crop variety resources supplied from abroad must be handled according to the relevant provisions of the state.

Article 8: Crop breeding must proceed from the natural conditions of the locality, adapt to the requirements of commodity production and cultivate new fine-quality, high-yielding, strongly disease-resistant, broadly adaptable specialty varieties.

Article 9: Breeding units must enhance research in cultivation techniques for new varieties, and provide appropriate cultivation techniques at the same time as supplying new varieties.

Article 10: According to the provincewide unified plan for agricultural science and technology work, the provincial Academy of Agricultural Sciences and the departments concerned are to be responsible for organizing the relevant scientific research units and institutes, division of labor and cooperation, coordinating diverse branches of learning, advancing in a planned manner crop variety breeding, and research into its basic theory, and guiding the peasants to launch scientific research activities.



### Section III: Variety Examination and Approval

Article 11: A grade-one unified examination and approval system for new crop varieties must be instituted at the provincial level.

Article 12: The provincial crop variety examination and approval commission, under the leadership of the provincial agricultural administrative departments, is to be responsible for examining and approving new crop varieties improved in the province and those introduced from elsewhere, and for determining the regions for trial growing and popularizing the varieties. Provisions are to be made to register, number and name the new varieties and recommend them for nationwide new-variety examination and approval.

The crop variety examination teams set up by the cities, autonomous prefectures and prefectures, under the leadership of the same-level agricultural administrative departments, are to be responsible for the initial review of that area's new varieties and for reporting the approvals of the provincial crop variety examination and approval commission.

The provincial crop variety examination and approval commission may entrust to the municipal, autonomous prefecture and prefectural crop variety examination teams the examination and approval of new varieties which are highly regional.

Article 13: For new varieties which have undergone examination and have been approved, the breeding units or individuals must supply the provincial seed administration offices with a specified quantity of the original stock seed so they can organize demonstrations, propagation and popularization in a planned manner.

Article 14: Business may not be transacted for new varieties which have yet to be approved or for which examination shows them to be substandard, and they may not be popularized or publicized.

### Section IV: Seed Production

Article 15: The seed companies must set up seed bases and carry on specialized production. Seed bases include state-run stock (and improved) seed farms, specially arranged seed production specialized households and specialized villages in the rural areas, and other propagation bases.

Article 16: Quality must be foremost in seed production and appropriate varieties (and combinations) must be produced according to need.

Propagation and controlled planting of parent stock of hybrid varieties is to be accomplished through the planning and organization of the seed companies exclusively; other units and individuals may not engage in propagation and controlled planting outside the unified plan.

## Section V: Seed Inspection and Quarantine

Article 17: The seed inspection offices of the provincial, municipal, autonomous prefecture, prefectural and county agricultural departments are to have common responsibility for seed inspection work. The seed inspection offices and personnel must carry out inspections in compliance with the technical regulations for seed inspection and sign and issue inspection certificates strictly according to facts. No one may interfere with or obstruct normal seed inspection work.

Article 18: The crop seed procured, sold and used for propagation and controlled planting by the seed companies must test up to standard.

Inspection personnel have the authority to spot check seed sold in the markets and that for the private use of the agricultural production units and peasants households.

Article 19: A certificate of inspection must be obtained to move crop seed across county lines. Transport and postal departments may not handle, carry or post seed for which there is no inspection certificate.

Article 20: Seed for which the germination percentage and plumpness are a little low but which truly must be procured, transferred in and supplied due to circumstances beyond control must be reported to the people's government at the county level or above for approval, be granted a special certificate by the seed inspection office, and after meeting quarantine standards may be allocated, shipped and planted by the locality.

Article 21: Seed quarantine is to be controlled exclusively by the plant quarantine office.

## Section VI: Seed Management

Article 22: Hybrid varieties and their parent seeds are to be taken in, stored and supplied exclusively by the seed companies.

Stock seed of various crops, new varieties which must be rapidly propagated and popularized, and improved varieties under routine propagation by the seed companies are to be taken in, stored and managed by the seed companies; peasants may directly market and barter conventional improved varieties not routinely propagated.

Peasants and individual households may market the seeds of miscellaneous minor grains, minor oil crops and vegetables.

Peasant and individual households which market seed should comply with the relevant provisions of the industrial and commercial administrative departments.

Article 23: The quality of seed transacted must be guaranteed. If economic losses are suffered in production as a result of seed being mistakenly distributed or of being of substandard quality, the supplier is responsible for compensating the losses.

Article 24: In transactions, the seed price must be set according to quality, with high prices to be set for fine quality. The pricing principle is to be formulated exclusively by the provincial agricultural administrative departments. Commission sales of seed must be in line with the price set by that locality's seed company; collecting additional fees is prohibited.

Article 25: Trade in importing and exporting seed is to be managed exclusively by the provincial seed company.

Article 26: Each locality must store up a certain amount of seed against natural disasters. The reserve plan is to be drawn up jointly by the agriculture and grain departments, with the grain department to be responsible for storing, allotting and supplying the seed. Drawing on the seed reserve must be jointly approved by the agriculture and grain departments.

#### Section VII: Rewards and Penalties

Article 27: Those who make notable achievements in the scientific theory, breeding techniques and selection of new varieties of seeds, in collecting, preserving, researching and utilizing variety resources, in testing and demonstrating, increasing and protecting purity, propagating and popularizing, processing and examining fine varieties, and in seed storage and care, are to be commended or rewarded by the people's government or the department responsible for the work at the county level or above.

Article 28: For any of the following actions, the people's government or relevant department at the county level or above are to differentiate among the circumstances and impose such punishments as teaching through criticism, applying disciplinary sanctions, and ordering compensation for losses, as well as imposing a fine and denying a person the illegal income; if the situation is serious and there is a violation of criminal law, the judicial organs are to investigate responsibility for the crime:

1. in the work of preserving variety resources, seed production and in business dealings, as well as variety breeding, experimenting and testing, the work is faulty, there is neglect of duty or practice of fraud;
2. intentionally hindering or subverting the selection, testing, examination and approval, or popularization of new varieties;
3. deceitfully selling seed which has been mixed, or passing off seed of inferior quality as fine-quality seed;
4. acquiring a quarantine or inspection visa and transferring or selling seed in violation of state laws and regulations or these regulations;
5. distributing or selling, without authorization, varieties which have yet to be examined and approved or which have been found to be substandard;
6. diverting, without authorization, seed reserved against natural disasters, affecting disaster relief production;

7. transporting out of the territory varieties or variety resources which are not for export.

#### Section VIII: Supplementary Provisions

Article 29: The provincial Agriculture and Animal Husbandry Department is to work out the means of implementaing these regulations.

Article 30: These regulations take effect on the date of publication.

#### Seed Regulations' Importance Underscored

Chengdu SICHUAN RIBAO in Chinese 12 Sep 84 p 2

[Editorial: "Regulate Seed Through Laws, Promote Increased Agricultural Production"]

[Text] The "Sichuan Province Crop Seed Management Regulations" adopted by the 8th Session of the Standing Committee of the Provincial People's Congress have today become effective upon publication. These are the first seed management regulations in the province and are a major event in establishing modern agriculture.

Seeds are the most basic material for agricultural production. Seed quality directly affects agricultural output. Practical experience proves that breeding and popularizing fine varieties in a planned manner is a means to increasing output requiring small investment while producing speedy results, large earnings and no pollution. One of the most important reasons for the large increase in agricultural production in the province in the last few years has been the selection, propagation and popularization of hybrid and various improved varieties in batch lots. With the improvement and perfection of the joint household contract responsibility system in the countryside has come rapid development of the rural commodity economy and an extremely pressing peasant demand for improved varieties. Utilizing improved varieties has become a significant element of scientific farming practiced by the peasants. In developing modern agriculture, to raise the level of intensive farming on a limited amount of cultivated land requires seed of good quality and high output. However, seed work is still not at all suited to the present requirements of developing circumstances. In view of the actual situation in the province, in order to fundamentally change the confused state of affairs in seed production and supply, maintain steady agricultural production and ensure profits to the peasants, there is a pressing need to formulate seed regulations. This would be highly significant for further enhancing seed management, abetting the selecting, propagating and popularizing of improved varieties, ensuring seed production and supply, controlling plant diseases, insect pests and the spread of weeds, and promoting increased agricultural production in the province.

The "Sichuan Province Crop Seed Management Regulations" are in line with the relevant seed policies of the state, and were formulated based on the sum of our experience over many years in seed management in the province. These

regulations clearly stipulate that the guiding ideology and fundamental tasks in seed work are to utilize the most recent achievements in modern science and technology to select and popularize fine varieties, promote seed work to progressively bring about overall variety regionalization, specialized production, mechanized processing and quality standardization, and to supply improved varieties in a planned manner. There is a need for the cooperative effort of many disciplines, departments and links from the collection and preservation of variety resources of seeds, to selection and propagation, to management operations and popularization. Therefore, the regulations clearly define the responsibilities of, and the relationships between, the various departments charged with setting up the seed control system with regard to scientific research, production and management; they place constraints on various illegal activities and protect the legitimate rights and interests of the seed breeders, producers, dealers and users. These are regulations which have derived from the actual situation in the province, and are an important guarantee for strengthening seed management and completing seed work.

After the seed management regulations have been promulgated, we must comply with them, strictly enforce them and investigate violations. All departments and individuals having to do with seeds must conscientiously study, propagandize for and implement these regulations, and uphold the seriousness of them. Relevant leading cadres in the Party and government at all levels must take the initiative and implement the regulations, and under no circumstances pay them lip service only. Seeds are different from ordinary commodities, and are the most difficult of which to control quality. Therefore, those who produce, manage and deal in seeds must, with a high sense of responsibility, carry out the provisions of the regulations and ensure seed quality. We must investigate, affix responsibility and order compensation from those who are irresponsible, neglect their duty, supply inferior seeds and create economic losses. Seed inspection and quarantine offices, industrial and commercial administrative and management departments, and judicial organs should actively coordinate with the seed management and business departments to enhance seed management, and firmly punish all activities which are in violation of the regulations, infringe upon the interests of the peasants and subvert production. Cultivating the idea of managing seeds through laws and working strictly according to law will promote the continued development of agricultural production in the province.

#### Crop Seed Terminology Defined

Chengdu SICHUAN RIBAO in Chinese 12 Sep 84 p 2

[Article: "Farm Crop Seed Management Terminology Explained"]

[Text] Variety: a farm crop colony of economic value with rather identical, specific characteristics, and which is derived through selection, hybridization or artificial means.

Hybrid Seed: seed obtained from the cross of two or more parent stocks.

**Parent Stock:** the paternal and maternal material used when crossbreeding; the paternal and maternal self-fertilizing, sterile, preservation and recovery lines used to compound the hybrid are likewise called parent stock.

**Manufacture Seed:** refers to using two or more parent stocks to compound hybrid seed.

**Original Stock Seed [yuan yuan zhong 0626 0626 4429]:** seed produced by the breeder which preserves the original variety representativeness and 100 percent of the former yield levels and purity. It is the foundation seed for breeding and spreading improved varieties.

**Pedigree Seed:** seed which is directly bred from the original stock seed [yuan yuan zhong] or produced from the filial generations of the stock seed through 2 or 3 cycles in the stock plot to increase purity and which conforms to stock seed quality standards.

**Improved Seed:** seed used to supply production which is bred from pedigree seed and conforms to quality standards.

**Variety Resources:** all varieties and wild species, as well as all that can be used as materials for breeding new varieties.

**Inspection:** refers to checking to see whether or not the variety purity and cleanliness, moisture content and germination percentage of the seed conform to quality standards.

**Quarantine:** refers to checking the seed to see whether or not it contains such quarantine targets as plant diseases, insect pests or weeds.

**Regional Testing:** arranging for a number of test points and carrying out 2 or 3 years of adaptability experiments on newly improved or newly introduced varieties in different natural areas before approval and popularization.

**Production Testing:** 1 or 2 more years of production tests on promising varieties selected from the regional testing. This testing is done over a relatively large area and is generally carried out employing local cultivation methods.

**Conventional Seed:** seed used for production which has not been obtained through hybrid means.

**Quarantine Targets:** major plant diseases, insect pests and weeds which are carried along and spread by plant reproduction material such as seeds and seedlings, which occur in isolated localities, and which are seriously harmful. The state has listed these classes of plant diseases, insect pests and weeds as the targets of quarantine.

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XINJIANG

NEW AGRICULTURAL INSURANCE ENTERPRISE EXAMINED

Beijing ZHONGGUO NONGKEN [STATE FARMS AND LAND RECLAMATION] in Chinese  
No 1, 24 Jan 85 p 32

[Article: "Insurance of Damaged Winter Wheat"]

[Text] Team 128 of the No 7 Agricultural Division Headquarters in Xinjiang Province has both carried out the production responsibility system and made structural reforms in the area of family farms in its region. As a result, there has been some production development, the family farms have also turned their losses into profits, and there has also been some improvement in the workers' lives. However, during the last few years, in the region's agricultural production, the percentage of winter wheat that was damaged by the cold climate has been rising. From 1982 to 1983, the average rate of damaged winter wheat was over 10,000 mu, 50 percent of the total yield. This situation has thus seriously and adversely affected both the production of winter wheat and the income of the workers. It has also reduced the chances of self-enrichment of the rural workers and affected the reorganization of the rural economic structure.

As a result, the rural farms and the insurance organizations have joined together to actively seek the establishment of winter wheat insurance. Nevertheless, this type of policy has never been carried out in our country and at the same time, we also lack useful references in the form of relevant experiences from abroad. Therefore, in order to facilitate the insurance companies' successful establishment of this type of insurance, the farms have provided them with a great deal of useful information, such as the historical background, geographical conditions, and opportunities for the exchange of information and also wide publicity. However the agricultural team has also decided that they will not make reluctant workers join the insurance policy but they will pay the necessary premiums on behalf of the willing who cannot afford to do so. On 16 November last year, an agreement contract was signed among all the responsibility households, the family farms and the insurance company. The agreement includes the following main conditions: The premium for each mu of winter wheat is 1.6 yuan to cover the period from the winter wheat's sprouting to the end of the following winter. Therefore under the usual commercial regulations, the payment of 21 yuan will be paid out to cover total damage of any mu of winter wheat while partial damage will be covered by 17 yuan.



As a result, this policy will lessen the state's financial burden in the legislation of the responsibility system and at the same time, it will also facilitate the success of the implementation of rural agricultural structural reforms. Within the entire team, 1,007 family farms and 753 responsibility units have joined in this insurance policy and 20,000 mu of winter wheat has thereby been insured.

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CSO: 4007/231

YUNNAN

# RECORD HIGH GVAO REPORTED

Kunming YUNNAN RIBAO in Chinese 17 Dec 84 p 1

[Article: "Yunnan's Agricultural Front Spreads the Good News: Overall Development of Agriculture, Forestry, Animal Husbandry, Sideline Production and Fisheries Achieved; Gross Output Value Sets a New Historical Record; Output Value of Diversified Operations Constitutes 60.3 percent of GVAO"]

[Text] This year Yunnan's agricultural production once more achieved all-round bumper harvests with over-all development in the five industries of agriculture, forestry, animal husbandry, sideline production and fisheries. In accordance with the 1980 price index, this year the gross agricultural output value [GVAO] for the first time broke through 7 billion yuan, reaching 7.758 billion yuan, an increase of 810 million yuan from 1983, an 11.7 percent increase, setting a new historical record for Yunnan's GVAO.

Through this year's implementation of the spirit of Central Committee Document Number 1 and under the party's various economic policies in the countryside, grain production in the Yunnan countryside is in no way slackening, and the principles to guide the diversified economy are being actively developed by carrying out rational adjustments in the agricultural production structure and enabling our province's natural superiority to be exploited, with grain breaking through the 20 billion jin high point, besides effectively increasing the range of diversified operations. In 1984 the grain output value in the entire province increased by 153 million yuan from last year, a 5.2 percent increase, and from constituting more than 42.1 percent of the GVAO, it fell to 39.7 percent. The output value of diversified operations is able to reach 4.677 billion yuan, an increase of 657 million yuan from last year, and a 60.3 percent increase, constituting 60.3 percent of GVAO, compared with last year's 57.9 percent. This shows that by giving priority to grain cultivation, new changes will occur in the traditional agricultural production structure.

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CSO: 4007/179

YUNNAN

#### FARM MACHINERY MARKET TREND IN YUNNAN OUTLINED

Kunming YUNNAN JINGJI BAO in Chinese 7 Dec 84 p 2

[Text] At the present time, brisk buying and selling is emerging in our provincial farm machinery market and there is momentum for the sales capacity to continue rising. Up to October, net sales in the entire province amounted to more than 139 hundred million yuan, 117.6 percent of the yearly plan. Compared to the same period last year it increased 25.9 percent and by the end of the year it can attain a breakthrough of 160 million yuan. The situation can be seen by the total provincial plan and in the goods ordered within and outside the province. The trend for 1985 estimated sales continues to rise, while the required quantity of some products is relatively large so that supply may fall short of demand.

Walking tractors: Up to October, 10,653 tractors were sold, surpassing the highest level in the corresponding period's history. Presently, the supply of walking tractors in the whole province is falling short of demand as more and more agricultural households are lining up to buy the machines. Around 14,000 tractors are needed for 1985, but only 8500 have been delivered from supplies. At the present time there are an increasing number of goods ordered from outside the province.

Diesel engines: Up to September there were net sales of 7,438 engines, an increase of 54.6 percent from the same period last year; As the entire province is in great need of them, supply currently is falling short of demand. The reasons are: agriculture in successive years has had bumper harvests and the mountain regions, being without electricity, use diesel engines as the motive force for processing agricultural and sideline products while running generators for light. As a result, the market potential is great with around 103,000 diesel engines needed for 1985, while 9,000 have been delivered from supplies.

Large and medium sized tractors: Although until October sales were down by 24 percent compared to the same period last year, the potential demand is already gradually becoming visible. The recent tractors are of a better quality and more efficient, such as the Shanghai-50 and Tieniu-55, while there is emerging in the whole province a shortage of supplies. Demand for the Dong-75 has also increased. Large and

medium sized wheeled tractors are appropriate for specialized household transportation needs or in the fields during the busy farming season, and caterpillar tractors are appropriate for industrial and sideline production. Because of this, the estimated demand for 1985 will rise, but for the time being only 305 tractors have been delivered from supplies.

Wheelbarrows: Up until September the net sales were 5,659, a 30 percent decrease compared to the same period last year, and the 1985 estimate shows continued decline, the reason being that the area in which wheelbarrows are suitable already tend towards a saturated market. They are not suitable for roads which are impassable in the extensive and remote mountain regions.

Besides these, vehicles for agricultural use, conducting wires, rolled steel for agricultural use and construction, sub-terranean water pumps and so on, are even more scarce. According to incomplete statistics, 1,000 to 1,500 vehicles are required for agricultural use but at the present time only 650 have been delivered from supplies, and in addition, the models do not meet the requirements. As for conducting wire, in 1984 1100 tons were required, but only 200 were supplied, a huge difference. The estimated demand for 1985 is 1300 tons, but it has not been completely delivered from supplies.

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CSO: 4007/179

ZHEJIANG

BRIEFS

LEAN-MEAT LIVEHOG INTRODUCED--The Agricultural Research Institute of Zhejiang Province has experimented in breeding of the "Du-Zhe" livehog. Each of these hogs weighs 90 kg on the average at 185 days. In addition, its consumption of 2.9 kg of feed yields an increase in its weight of 1 kg and the average rate of leanness in their meat is 61.5 percent. The "Du-Zhe" breed of livehog has been bred from the No 1 White breed of the Zhejiang lean sow with the imported Duroc No 1 commercial hog. The characteristics of this "Du-Zhe" breed is thus strong and lean in the quality of its meat, its rapid growth and low consumption of feed and lastly the leanness of its meat. [Text] [Beijing NONGMIN RIBAO in Chinese 29 Jan 85 p 2] 12740

CSO: 4007/231

Pedology

AUTHOR: ZHONG Xianyun [6945 5029 7189]

ORG: Guangdong Provincial Pedology Institute

TITLE: "Structure and Fertility of Paddy Soils in the Zhu Jiang Delta"

SOURCE: Nanjing TURANG [SOILS] in Chinese No 6, Dec 84 pp 209-213, 236

ABSTRACT: Out of 6.72 million mu of farmland in the Zhu Jiang delta, 82 percent are of paddy soil type, predominantly in [so-called] meaty mud (nirou), bony mud (nigu) and oily lattice (youge) soil. With the addition of oily mud (youni) and yellow mud (huangni), the five above-mentioned soils were subjected to tests. Of the five, only yellow mud is monadnock alluvial soil derived from red loam; the four other soils are classed as delta alluvial soil. The relationship between soil structure and fertility was studied in 1980 and 1981. The meaty mud and oil lattice soil are the most fertile among the five kinds of soil with loose aggregates and pores of different sizes for good ventilation and permeability, beneficial to the growth of plant root systems. The organic contents are 4.77 percent for the former, and 2.37 percent for the latter. The reason for the lower fertility in bony and oily mud is their less desirable structure although their organic contents are 2.01 and 3.32 percent, respectively, which are not low values. In the case of oily mud, excessive water was often present beneath the tilled layer with poor ventilation. In this environment, decomposition and mineralization of organic matter are very limited with black humus and semi-humus plant remains. Fertility in yellow mud is the lowest because of its fine particles packed closely with poor ventilation. Nutrient content is low, either in total or available value. Seven tables show the physiochemical properties, microaggregates and physical composition, soil porosity, equivalent porosity, crop growth and output, absorption of nitrogen in ammonia state, crop transpiration rate and redox potential. Four figures show moisture property curves, and ammonia-state nitrogen content in soil during different paddy rice growth periods. Huang Meijyan [7806 5019 5333] also took part in the study. Some of the soil analysis involving its physiochemical properties was performed by the physics laboratory, agricultural chemical laboratory, and geography laboratory in the provincial pedology institute. Professor Ye Hecai [5509 0735 2088] of the Beijing Agricultural University provided counsel.

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